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North Bauchi Chadic Languages: Common Roots

and

'Fly' (Noun) and 'Mouth' in Afroasiatic

by

Neil Skinner



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NORTH BAUCHI CHADIC LANGUAGES: COMMON ROOTS

by

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The main part of this paper is a list of approximately 650 roots, arranged in alphabetical order of the English glosses, with cognates from nine North Bauchi Chadic languages. This is prefaced with an account of the means by which the data were obtained during the writer's nine months' research in the Ningi Miya area of the North-East State of Nigeria, in 1973. There are two maps to show geographic relationships, also within the Chadic area as a whole. In separate columns, possible cognates from other Chadic (and some non-Chadic) languages are noted. The evidence supports the validity of the North Bauchi cluster as a subgroup, with percentages varying from 44 percent (Warji and Kāriya) to 20 percent (Diri and Miya).

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0. INTRODUCTION

The North Bauchi group of Chadic Languages was separately classified, most recently, by Hoffmann (1971). The peoples who speak them were described briefly in Gunn (1956), but

other than Jungraithmayr (1966/67) there appears to have been little published on those languages. References in Greenberg and in Kraft (1971), however, indicate that they recorded material at least from Diri and Miya. There are also unpublished lists for Warji, Siri and Pa'a — and perhaps others — collected by Gowers in 1907. In an attempt to provide further information about this group, the author spent nine months in the N.E. State of Nigeria in 1973-74 and recorded versions of the Jungraithmayr-Günther Chadic list in Ningi, Nasaru and Miya for eight languages. The list was also recorded for the ninth language, Fūcaka (Hausa *Pa'anci*), by Margaret G. Skinner during the same period. Assistance of the informants listed below, the Local Authorities of Ningi and Bauchi and of the Principal of the N.E. College of Arts and Science, without all of whom the work would have been impossible, is gratefully acknowledged.¹

The language of elicitation was Hausa — except for Warji — and the recordings were made over several sessions, usually with only one informant. For some of the languages the sessions were public and others were present to check and amend what the informant was offering. In addition, except for Siri, the Hausa version of the list was given to the informants, who were literate, in advance of the recording sessions, and they prepared versions in their own language at home, usually in consultation with others. These versions have been used as checks against the author's transcription of the taped list. For Siri the main informant was illiterate, but also more readily available, and so recordings were done over many sessions, transcribing and checking being done at the same time; whereas for some of the other languages it was not possible to clear up queries on the later part of the list. None of these restrictions apply to the Fūcaka data, which was collected from several informants and checked and rechecked over many weeks as part of a larger study of the language. Copies of the tapes and transcriptions are now available in the Marburg Chadic card index.

The nine languages studied were

OWN NAME	HAUSA NAME	MAIN INFORMANT	APPROX. NUMBER OF SPEAKERS	ABBREVIATION
? Diri	Diryanci	M. Gambo, Store- keeper, Ningi	3,000	D
Fūcaka	Pa'anci	M. Gambo, Wakilin Gona, Ningi	20,000	P
Vinahə ²	Kāriyanci (Kāriyan Gyada)	M. Usuman Sanusi	3,000	K
Və Mvəran ²	Mburkanci	Muhammadu Bāko	4,000	B
Vəne Mi ²	Miyanci	Banabo Yakubu	5,000	M
Ciwogai	Tsāganci	Dano Shēka	3,000	T
Siri	Siryanci	Kankane Siri	3,000	S
Vina Zumbun ²	Jimbinanci	Maigari Audu	1,500	J
Sərzakwai	Warjanci	Ibrahim Baima	50,000	W

¹The author is most grateful, in addition, to Professor Paul Newman then of the Centre for the Study of Nigerian Languages, Kano for assistance of various sorts; to him also and to Russell Schuh for detailed comments and criticisms — many of which have been adopted; and to the American Philosophical Society and University of Wisconsin Graduate School for support.

There are two other languages in the group, of which one, Hausa *Ājanci*, is now reported to be extinct. The other, *Gāla*, was said by Ibrahim Baima to be a dialect of Warjanci (see below). No *Gāla* information was recorded. The following map shows the positions of the speakers of these languages.

1. COMMON FEATURES

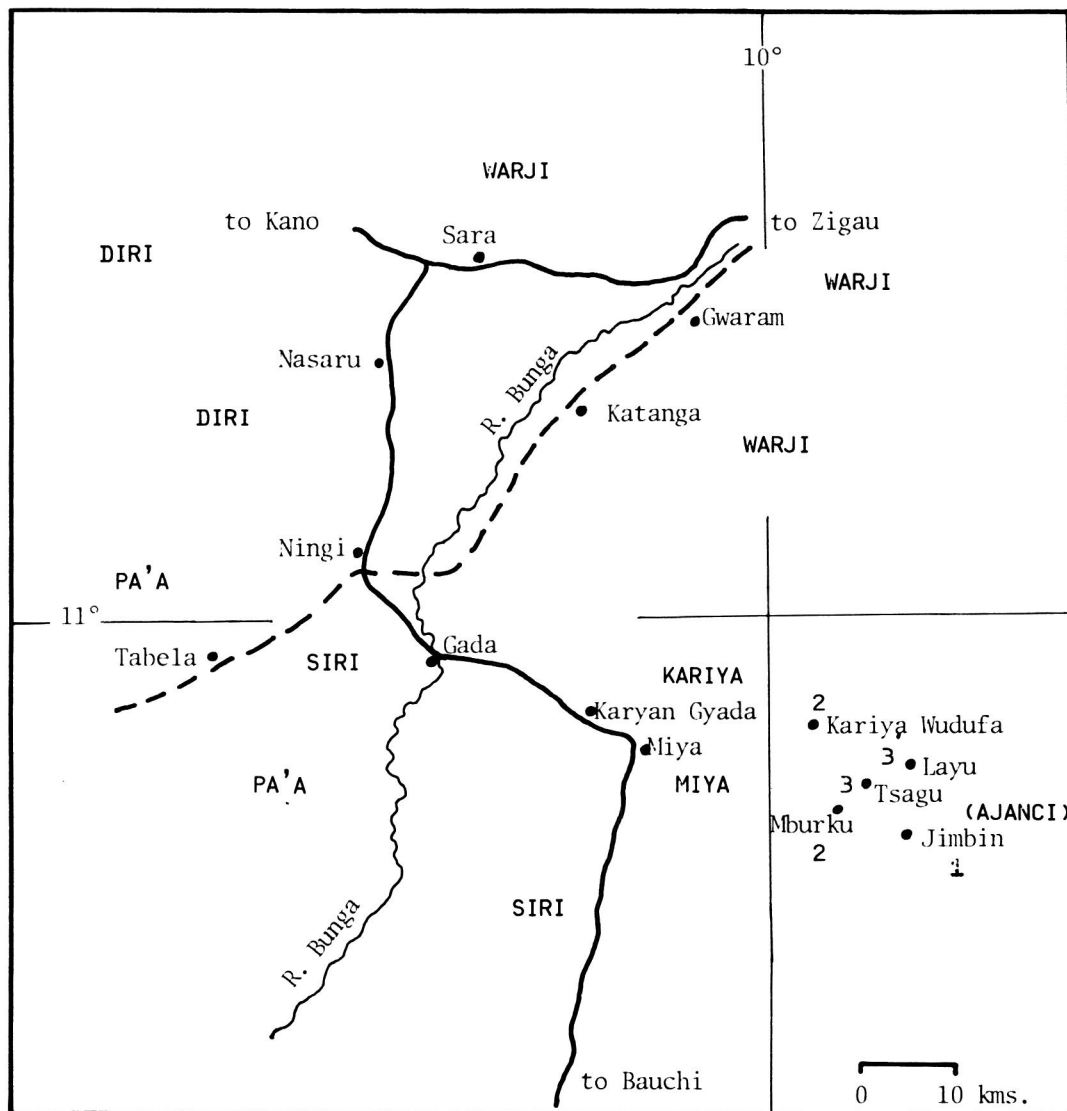
Except for Fūcaka, which was studied in depth, the only other information directly elicited for the eight languages consisted of minimal pronoun and verb aspect paradigms. These and the vocabulary listed below, however, seem enough to give reasonable support to the hypothesis of a North Bauchi (henceforth NB) grouping. Other common — but not necessarily exclusive — features are

- 1) Glottalized lateral ['tɬ] — see 'earth', 'numeral 5' and 'belch' below — ? lost in WJM,
- 2) 1st p.s. pronoun [m] for [n] common elsewhere in Chadic,
- 3) [tɬ] commonly in 3rd p.s.f. and pl. pronouns,
- 4) intransitive copy pronouns — see Newman (1971) *Festschrift Lukas* — in, at least DJMBK (T seems to have suffixed pronouns for *transitive* verbs),
- 5) continuous aspect marker [ā] in WSMBKT,
- 6) verbal negative marker occurring after the verbal complex and having the form [labial + u/a] except in W where the labial has been lost,
- 7) nominal suffixes (for some humans and animals), *-tsəki*, *-cəki* (m.) and *-zaku* (<?*zak-wa), *-cəka*, *-caka* (f.) in WPSMK — especially SM — and to a lesser extent T. J has *-ju* (m.) and *-jakwa* (f.) with similar meaning. D has *-akwa* (f.) but usually with different roots; it also has *-du*, but the correlation with gender, if any, was not ascertained. There is evidence for the Chadic -K- body-part suffix, especially in B, which has *-hu*; this also survives in 'mouth' in WPSBKT. W has *-na* regularly as m. marker, and *-ai* as f. marker. That *-ai* < *-at is supported by the forms for 'sun', where D alone of NB retains the Protochadic *-t- in *ɣata*, whereas in WPKT *-y* occurs.
- 8) nominal prefixes seem to be rarer. The widespread (in Afroasiatic) agential *m-* does not occur as a productive affix. Its function is often performed by a suffix *-tsəki*. In some forms the *m-* has been reinterpreted as part of the root, as the *-tsəki*, which is still productive, has been added. In addition S uses a *b-* in some numerals (q.v.), while D frequently prefixes *a-* (as it also does to the independent personal pronoun set).

Professor Schuh adds that the Diri for which Kraft collected a vocabulary is a different language, spoken in South Bauchi.

²For the initial component — in K, the whole word — see 'mouth'.

SKETCH MAP OF N. BAUCHI LANGUAGE AREA
(adapted from Africana Marburgensia VII,I (1974))



Languages thus: SIRI

- 1 JIMBIN (Zumbun)
- 2 MBURKU (Mv ran)
- 3 TSAGU (Civogai)

() said to be extinct

—— all season road
- - - dry season road

2. THE PHONETIC INVENTORY

The inventory of CONSONANT sounds is as follows, though not all languages have all of them. ['p] and ['t], for example, seem to have been lost in most of them, while, as already said, WJM seem to have lost ['tɬ]. The situation with regard to ['ts] and ['s] and closely related sounds [ts, s, ʃ, c and 'c], not to mention the voiced equivalents of the non-glottalized ones (at least) is confusing and needs much closer investigation. ['ts] and ['s] are allophones in standard Hausa,³ in which ['c] does not occur — though /'c/ occurs in Western Hausa, partially at the expense of /'ts/. [ts], on the other hand, is said not to occur in Hausa, but /c/ is a phoneme there. As elicitation was done through Hausa and as the author found it extremely hard to hear the difference between ['ts] and ['s] — if indeed it ever occurred — markings of ts, 's and 'ts in the list should be taken with considerable reservation. However, in W at least, /ts/ and /'ts/ were clearly different, though Ibrahim Baima on a number of occasions said ['c] rather than ['ts] for what he wrote as ts, usually before [i].⁴ (Note: glottalized sounds are represented either by the hooked letter or by the letter preceded by the apostrophe)

STOPS

p	'p	t	't	'tɬ	k	kw	ky	k̥	k̥w	k̥y	(')
b	b̥	mb	d	d̥	nd	g	ŋg	gw	gy	ŋgw	

AFFRICATES

ts	'ts	c	'c
dz		j	nj

FRICATIVES

ʃ	s	's	ʃ̥	tɬ	h(x)
v	z	nz	z̥	dɬ	ɣ(h) ɣw (hw)

CONTINUANTS

w	y	r	l
m	n		

For VOWELS, as might be expected, a, i, u and ə are common, o and e much rarer (except perhaps in T). Nothing can be said about the extent to which individual languages may have phonemic distinctions between [i], and [u] and [ə], though an attempt has been made to record these sounds accurately. Phonetic vowel length (mainly aa) does not seem frequent except, again, in T. As for TONES, usually three levels and a falling were heard in the recordings and a number of minimal pairs of monosyllables confirmed, but it would have been highly impressionistic to have included any tonal markings in the present work.

³In the list below, where a H form is quoted, ts has been written, following the standard orthography, in all cases.

⁴He is the informant with the best educational qualifications and the most experience in writing his own language. He is also the only one with whom it was possible to elicit in English, using Hausa as a crosscheck. This had such advantages as ease in finding a form for 'light', for which in H one has to say 'not heavy'.

3. SUBGROUPING

As for the groupings within NB, as has been said, Gāla is reported a dialect of W. Moreover the village head of Kāriya (father of the informant) reported that K speakers could understand W, though W speakers had difficulty in understanding K; Gāla, he confirmed, was even closer to W. The closeness of W and K is corroborated by the list that follows. In this there are approximately 650 roots and of this number W and K appear to be cognate in 44 percent. Comparing with this three other pairs of NB languages now spoken moreover by neighbouring groups, JB, WD and PS, we have figures of 31, 27 and 29 percent respectively; whereas for three pairs that are not now in direct contact with each other, PT, ST, ST and DM, we have figures of 24, 22 and 20 percent.

4. THE VOCABULARY LIST

4.1. The Format

Modern loanwords, from Hausa or English, have of course not been included in the list, although such items as 'loincloth', 'colanut', 'datepalm' and the like are of considerable interest historically speaking; so too 'maize' and, of course, 'market'. However, consideration of a word like 'camel', for which the forms are KDJT *rākumi* S *rakwami* B *lākumi* W *lakum-ai* M *lakumi* all presumably borrowed from Hausa *rākumi*, itself a loanword, raises doubts about any form where the nine languages still are as close as this. For example, for 'bushcow' SDMBK are all identical with *kəvən* while M has *kəvəni* and J *kəvna*. Yet for a root such as 'guinea-fowl' while all nine are surely cognate, all are considerably different. One suspects that 'bushcow', though probably originally Chadic was itself borrowed throughout the group at about the same time. Similar considerations apply to 'horse' and 'crocodile' which look like widespread early loans. The Kanuri form for 'crocodile' is very close. Contrariwise, roots for the older domestic animals, except 'sheep' (? a later introduction) behave more like 'guinea-fowl', i.e. they are usually reconstructable but often with difficulty.

The list has four columns, of which 2, 3 and 4 require some explanation. Column 2 only contains an entry where there is substantial agreement between at least three of the NB languages, though evidence from Column 4 has sometimes weighed in favor of an entry's being made. From this point of view, WK have been counted as one language. In cases of doubt, no common root has been entered (even though there obviously is one) and the related forms have simply been entered in column 3.

Column 4 contains comparative forms from other Chadic languages. Possible cognacy usually decided whether to enter the form or not, while some effort was made to seek forms from West, Central and East Chadic languages. The preponderance of Ngizim here may be significant, but the source (Schuh n.d.) was also the most complete available. Footnotes, apart from occasional comments, adduce suggested cognates from other Afroasiatic languages and occasionally make reference to Cohen (1947). In the light of the extra knowledge, especially of Chadic, that has been recorded since 1947, it is surely time that that great work was updated.

4.2. The Symbols Used

The following conventions and abbreviations are used. Spelling has followed the sources, except that generally *ʃ* has replaced *sh*. Entries for Hausa follow the standard orthography, except that vowel length in non-final syllables has been noted and sometimes morpheme boundaries indicated by hyphen:

UPPER CASE

Voice/voiceless or emphatic/non-emphatic variation in evidence

upper case N	Unspecified nasal
<u>underlining</u>	Evidence dubious, e.g. tape poor or form taken from informant's written list and not recorded
?	Cognacy especially dubious
/	Between phones both attested in evidence
()	Unspecified consonant
-	In column 2 indicates unspecified vowel: in columns 3 and 4 indicates morph boundary

ABBREVIATIONS

Chadic (in alphabetical order)

Angas	Ang
Bacama	Bac
Bedde	Bed
Bole	Bol
Buduma	Bud
Dangaleat	Dgl
Dera(Kanakuru)	Dr
Fali	F
Mucella	(M)
Kiria	(K)
Bwagira	(B)
Jilbu	(J)
Gisiga	Gis
Gwandara	Gwd
Hausa	H
Jegu	Jg
Kerikeri	KK
Kilba	Klb
Kofyar	Kof
Logone	L
Mandara	Mdr
Margi	Mg
Matakam Group	MAT
Matakam	Mat
Musgu	Msg
Ngizim	Ngz
Ron	R
Fyer	(F)

Bokkos	(B)
Daffo	(D)
Sha	(S)
Kulere	(K)
Sura	Sur
Tera	Tr

Protochadic

Newman and Ma (1966) NM
reconstruction

Afroasiatic

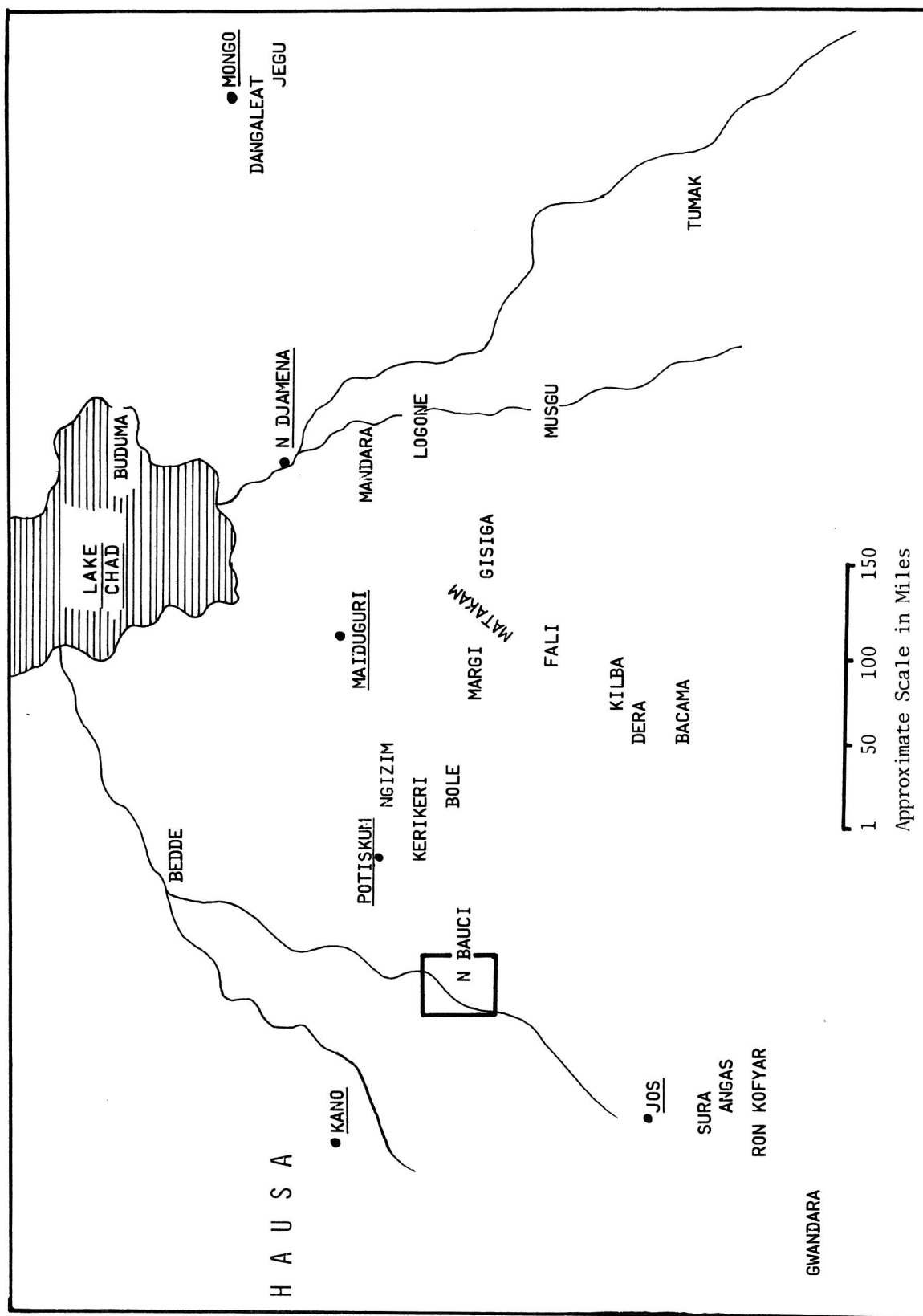
Cohen (1947)	C followed by a number
Protoafroasiatic	PAA
Akkadian	Akk
Bedauye	Bye
Egyptian	Eg
Arabic	Ar
Berber	Br
Tamazight	Ta

Non-Chadic

Kanuri	Kan
--------	-----

Note: a) where one gloss is represented by several roots, these have usually been distinguished as a), b), c) etc.

b) ANTELOPES, NUMERALS, and TREES are entered together under those glosses.



SKETCH MAP ILLUSTRATING PRINCIPAL CHADIC LANGUAGES QUOTED

4.3. The Common Roots

	COMMON ROOT	NORTH BAUCHI	OTHER CHADIC
'accept, receive'	gəs-	SMB, WK gəš-, J ḡgəs-, D kəsa	MAT, GəS <i>attraper, saisir</i> Dgl <i>gase obtenir</i>
'accompany'	tək-	PDMBK, W cək-, S taka, T tōhō	Gwd ce
'allow, let, leave'	a)	WK fəl-, D bəsa, S bi, B bud-;	H bari, RF min, Dgl wanye, Kof bwot, Ngz bəzə, Bac mudī, L mala;
	b)	W ɪr, D 'ya, J uw;	Ngz ɪvə
	c)	M zū, P aju, jar	
'angry, be'	a)	W šib-, D šubu, M dluwar, K tliwər;	
	b)	P akwar, S akur, J kwar-	
'animal, domestic' ⁵		MBK dlangir, P dlangir 'wealth'	Bac səgur-to
ANTELOPES			
'bushbuck (<i>Tra-gelaphus scriptus</i>)'		P badakala, K batəkəl, T bəcinan, S badakəla	Bac gbindaliye
'duiker (H gada)'	a)	P kīci, S kīti;	Gis kirce, Antilopenart, Ngz gaduwa, H gada;
	b)	W dakəi-na, D adaki, T dōgan	Sur dugum, Antilopenart, Mg ijigəl
'gazelle'	a) tambu/ ər(-)	P tambura, S təmbəri, J tamur, B tambur, K tambər; ⁶	
	b)	T burāmən	H barēwə
'hartebeest'	a)	S zəngəri, D azuməgwara, J jīmakwan, K zumakwar, B kwanta T 'tsəmnarayi;	
	b)	P gurnatli, J burḡgudla	
'oribi'	a)	W ndagw-ai, D andagwa, K na'ə, nahə, B nadə;	
	b)	P vaka-caka, M vakə-tsaku, J vuyu, H batsiya S bi, T fīte	
'oryx'		W ndal-ai	
'reedbuck (<i>Redunca redunca nigeriensis</i>)'		PM gəlfi, K gəlfo, S gəlafi 'west- ern kob', T gāre, B gāri 'oryx'	Ngz gərafiya 'hartebeest', ?H kədau-niya, Ang kwēr
'roan antelope' ⁷	a)	B gažən;	Ngz gaskai

⁵See 'meat', 'bull', 'bush'.⁶Shuwa Arabic *katambur-*.⁷Cf. 'bushcow'.

	b)	P <i>babar</i> , S <i>babari</i> 'gazella dama';	
	c)	W <i>tləkəm-ai</i> , T <i>tləkəm</i>	
'western kob'		P <i>gudan-cəka</i> , M <i>gudən-zāku</i> , K <i>gudam</i>	
'western waterbuck (<i>Kobus defassa</i>) ⁸	-zakumb-	P <i>zakumba</i> (f.), D <i>azākumba</i> , M <i>zakwambai</i> , K <i>zakumbə</i>	H <i>gwambaza</i>
'anthill'	a) <i>bu/in</i>	W <i>bun-na</i> , P <i>bin</i> , D <i>abun</i> ;	Bac <i>mbur-tə</i>
	b) (d)-kw-S	S <i>dakā-tsəki</i> , J <i>dugwasi</i> , M <i>akwa'sə</i> , B <i>dūši</i> , K <i>kwasi</i>	Sur <i>təgər</i> , Ngz <i>kəsər</i> , H <i>sūri</i>
'arm, hand'	<i>kə/əm</i>	P <i>kəmaŋ</i> , S <i>kanta</i> , J <i>kan</i> , M <i>kəm</i> , B <i>kəmə</i> , T <i>kanə</i>	H <i>hannu</i> , RS <i>ngān</i> , Ngz <i>amai</i> , Tum <i>geŋ</i>
'arm, wing'	<i>pak-</i>	W <i>pak-ai</i> , K <i>pak</i> , P <i>puka</i> , M <i>pakə</i>	NM *(k-)p-k 'wing', Ngz <i>gapta</i> , Mg <i>babəgu</i>
'arrow'	't-G-	W <i>'tuwa-na</i> , P <i>taka</i> , S <i>təyi</i> , J <i>dūwa</i> , M <i>'tu</i> , B <i>'tū</i> , K <i>tu</i> , T <i>'tun</i>	Ngz <i>dəga</i> , I. <i>tāngi</i>
'ashes' ⁹	'pəT/ts-	W <i>'pəlī-na</i> , P <i>bətiki</i> , S <i>vətsəki</i> , D <i>butu</i> , J <i>būli</i> , M <i>pəli</i> , B <i>'pī</i> , K <i>pēli</i> , T <i>'pusən</i>	H <i>habdi</i> , Ngz <i>bəbəd</i> , RF <i>futu</i> , Tr <i>pəjit</i> , Bac <i>fita - diye</i> , ¹⁰ Dgl <i>butu</i>
'ask'	'ts-(G)-	W <i>tsəy</i> , P <i>taku</i> , J <i>tag-</i> , KM <i>'siy-</i> S <i>'sa</i> , T <i>'suw-</i> , D <i>šānu</i>	Ngz <i>jāyə</i> , RF <i>dut</i> , Bac <i>diyo</i>
'assemble' see 'gather'			
'awaken	<i>zə/ukw-</i>	W <i>zək-w-</i> , P <i>zu</i> , S <i>zəhu</i> , D <i>juwu</i> , J <i>zəgə-</i> , M <i>zəka-</i> , K <i>zək-w-</i> , T <i>juga</i>	
'axe'	a)	S <i>gəti</i> , KM <i>giti</i> ;	Gwd <i>gyita</i> , H <i>gātari</i> ;
	b)	P <i>šila</i>	Bac <i>šere</i>
'baboon'	a) B- <i>h-k</i> , h-B- <i>k-</i>	W <i>yipəhə-na</i> , J <i>bəraŋkayu</i> , M <i>buluŋkai</i> , B <i>burənkai</i> , T <i>yifəkən</i> ;	H <i>bikā</i> , Gwd <i>owukyi</i> , Ngz <i>bangai</i> , Mg <i>bəlam</i>
	b) b-N	S <i>binī</i> , P <i>būŋ</i> , K <i>bum</i>	
'baby'	<i>kaḁ-</i>	W <i>kaḁ-ai</i> , D <i>akabā</i> , K <i>kaḁə</i>	Ngz <i>kulābi</i> , Bac <i>nza-kpalame</i> ¹¹
'back'	<i>kyar-</i>	W <i>kyāra</i> (m.), P <i>kar</i> , J <i>kyar</i> , M <i>akyar</i> , B <i>kyar-hu</i> , K <i>kyar</i> , T <i>āri</i>	H <i>kyye</i> 'back of head', Ngz <i>akau</i> , Bac <i>kulaŋ</i> 'nape', Dgl <i>āro</i>
'bad' see 'ugly'			

⁸Cf. 'donkey'. ⁹Cf. 'rubbish heap'. ¹⁰*diye* 'fire'. ¹¹*nza* 'child'.

'bandicoot'	k-d-	S <i>kiləni</i> , D <i>agandakwa</i> , J <i>agwenda</i> , M <i>kyēdi</i> , B <i>kyaḍi</i> , K <i>kədi</i> , T <i>kājan</i> , W <i>gandakwa-na</i> 'rat' ¹²	Ngz <i>gādagum</i> 'rat', Dr <i>dəkou</i>
'bark'	a)	W <i>'tlaparai</i> , T <i>korōpe</i> , P <i>bakalti</i> , D <i>fuḥur</i> ;	NM *b-r
	b)	J <i>adumbambu</i> , M <i>tubabau</i> , K <i>tubabu</i>	
'bat'	't-'t-l	W <i>'tə'tāla</i> (m.), M <i>titel</i> , B <i>'ta'ta-</i> lə, K <i>tattal</i> , <i>daddal</i> , T <i>dendilagwan</i>	H <i>dwāḍwa</i> , RB <i>tanjo</i> , Gis <i>medledleŋ</i>
'beans'	a) (d) zam-	W <i>zama-na</i> , P <i>jama</i> , S <i>zami</i> , J <i>jaman</i> , M <i>zam</i> , BK <i>dzam</i> ;	Ngz <i>jābi</i> , Mg <i>tsəɹ</i> , H <i>wāke</i> , Bac <i>wāre</i>
	b)	T <i>wāran</i>	
'bear' see 'give birth'			
'beard' ¹³	m-r/l-	W <i>māra</i> (m.), S <i>murɿ</i> , D <i>muldu</i> , K <i>mar</i>	Ngz <i>mari</i> , Gis <i>madlamay</i>
'beautiful' see 'good'			
'become'	yan-	BKW, D <i>ham</i>	
'bed'	dlar	W <i>dlan-ai</i> , D <i>adlāra</i> , MB <i>dlar</i> , K <i>dlan</i> , T <i>lāren</i> ¹⁴	Ngz <i>dlārau</i> 'mat'
'beer'		W <i>cidlə-na</i> , J <i>tela</i> , M <i>tala</i> , B <i>tal</i> , K <i>tidli</i> , T <i>cālən</i>	Gis <i>dalay</i>
'begin'	a) Par-	P <i>ḥar</i> , T <i>pār</i> (< ? H);	H <i>fāra</i> , RD <i>fur-ay</i> ;
	b) (n) d-r	S <i>ndara</i> , K <i>dər</i>	RK <i>taron-</i> , Bac <i>tiya</i> , Dgl <i>durtye</i>
'belch(v.)'	gə'tl	W <i>γətl-</i> , P <i>gɿtlo</i> (n.), S <i>gəḍla</i> (?), D <i>gə'tla</i> , J <i>jiɟatlu</i> (n.), M <i>gəḷa-</i> , ¹⁵ K <i>γə'tl</i> , B <i>vətl-</i> , T <i>gāḍlan</i> (n.)	Dgl <i>gɛtyɛ</i> , H <i>gyātsa</i> , Ngz <i>gaddlə</i> , Gwd <i>giɟa</i> , Gis <i>'irdlew</i> , Mg <i>dla'wi</i> , Ang <i>jal</i>
'belly' see 'stomach'			
'big' ¹⁶	a) g-r	J <i>gara</i> , M <i>gyarni</i> , B <i>gārin</i> , K <i>garra</i> ;	NM *g-r
	b)	P <i>bəlam</i> , D <i>bula</i> (n.), W <i>mbāra-na</i> , T <i>ōban</i> (n.) ^{16a}	
'bird' ¹⁷	a)	J <i>zami</i> , M <i>žemi</i> , P <i>zən-ciki</i> , B <i>zama</i> 'chicken', T <i>cōmai</i> 'chicken', WK <i>šiw-</i> 'cock';	H <i>tsuntsu</i> , Mat <i>dzuw-ai</i> , Gwd <i>ncucuwa</i> , Ngz <i>dūta</i>
	b)	B <i>'cōti</i> , D <i>a'cida</i>	

¹²-akwa, a suffix. ¹³Tuareg *t-amar-t*. ¹⁴T probably an error for *dlāren*. ¹⁵M probably an error for *gəḍla-*. ¹⁶Cf. 'old'. ^{16a}Cf. 'long'. ¹⁷sum, *-T, fem. suffix.

'bite'	<i>kɪy-</i>	W <i>kɪy-</i> , P <i>kɪ̄</i> , S <i>kɪ̄</i> , D <i>ɪr-</i> , J <i>dagəna</i> , RD RB <i>ngōr</i> , Ngz <i>gāḍə</i> , Bac <i>adə</i> ¹⁸ M <i>kɪy-</i> , B <i>kɪy-</i> , K <i>kəki</i> , T <i>kəs-</i> ¹⁸	
'bitter'	a) <i>'tl-m</i>	P <i>'tlamma</i> , S <i>'tlāmāmi</i> , D <i>'saya</i> , T <i>'tlēmama</i> ;	
	b) <i>dy-m</i>	J <i>dyamadyama</i> , M <i>dəmadəm</i> , B <i>dāmin</i> , W <i>byambyan</i>	?NM * <i>d-D</i> , ?Ngz <i>dəgwāgwak</i>
'black'	<i>r-m-n</i>	W <i>rən-na</i> , M <i>rinni</i> , K <i>rimina</i>	Ngz <i>āyūwa</i> , KK <i>bərəm</i> , Dgl <i>bolōma</i>
'bleeding, cupping blood'	<i>takwan-</i>	S <i>takwana</i> , D <i>takwana</i> , M <i>takwam</i> , B <i>takwan</i>	
'blood'	a) <i>'t-m</i>	W <i>'tən-na</i> , P <i>atən</i> , K <i>tum</i> , T <i>'tīman</i> , ¹⁹	NM * <i>d-N</i> ;
	b) <i>'pəram</i>	S <i>pərami</i> , D <i>vud'əžu</i> , J <i>bərama</i> , M <i>pəram</i> , B <i>'pəraŋ</i>	NM * <i>b-r</i>
'blow'	<i>ɸ-y()</i>	W <i>ɸay-</i> , P <i>ɸaki</i> , S <i>ɸɪku</i> , D <i>ɸəcu</i> , J <i>ɸal-</i> , MBK <i>ɸay-</i> , T <i>ɸəs-</i>	NM * <i>F-</i>
'body'	a)	S <i>zəri</i> ; ^{19a}	NM * <i>z-</i> , Bac <i>sə-tə</i> , H <i>jiki</i> , Mg <i>udzu</i> ;
	b) <i>'tək</i>	W <i>'təy-ai</i> , DJ <i>tuwa</i> , M <i>tuwatu</i> , B <i>'təwo</i> , K <i>ti</i> , T <i>cəke</i>	Ngz <i>təka</i> ²⁰
'boil(v.)'	a) <i>vuw-/viy-</i>	P <i>vuvu</i> , S <i>wuɸu</i> , M <i>vuw-</i> , B <i>viy-</i> , K <i>vū</i> , T <i>vɪ-</i> ;	Mg <i>hwa</i> , Ang, Sur <i>ɸɪl</i> ;
	b)	D <i>šibu</i>	Ngz <i>zəbāya</i> , Bac <i>šifə</i> , H <i>tafasa</i> , RB <i>fos</i>
'bone'	<i>kə/əs-</i>	W <i>kāsū-na</i> , P <i>kəs̄ki</i> , D <i>adusu</i> , J <i>kəkasi</i> , M <i>kusi</i> , B <i>kakasə</i> , K <i>kāsu</i> , T <i>kekəsən</i>	NM * <i>'w-s-</i> ²¹
'border'	<i>(-)d-b-</i>	P <i>duwa</i> , S <i>dara</i> , J <i>andiba</i> , MB <i>dibi</i>	Bac <i>borə-tə</i>
'bow'	<i>za'-</i>	W <i>za'-ai</i> , P <i>za</i> , S <i>duhwi</i> , J <i>za'a</i> , M <i>za'i</i> , B <i>zīdi</i> , K <i>za'a</i>	RD <i>ndār</i> , Ang <i>jaŋ</i>
'boy' see 'son'			
'bracelet, ring' ²²	<i>ngun-</i>	W <i>ngun-ai</i> , D <i>anguna</i> , K <i>ngun</i>	
'brain'	<i>ndəl/n-</i>	W <i>ndəlɪ-na</i> , P <i>ndéndər</i> , S <i>ndəli-</i> (<i>mī</i>), M <i>ndəli</i> , B <i>dendəl</i> , K <i>ndəlai</i> , T <i>dirda</i>	Ngz <i>dlanak</i>
'break'	a) <i>ḡ-()</i>	W <i>bəbə-</i> , JBK <i>bā-</i> , M <i>ba-</i> , T <i>bā</i> , <i>bō</i> ;	NM * <i>b-()</i> <i>l-</i> } ²³
	b) <i>'pətl-</i>	P <i>pītla</i> , S <i>'pətlu</i> , D <i>ɸətlu</i>	NM * <i>p-s-</i> }

¹⁸Somali *qanṭn*. ¹⁹Semitic *dam*; Tuareg *ezni*. ^{19a}Ar, Eg, Somali *j-*. ²⁰Kan *tīqə*. ²¹C 225
Awngi *ḡats*, Tuareg *eγas*. ²²Cf. 'arm'. ²³? same etymon.

'break' (string)	<i>t-m</i>	W <i>təmə</i> , S <i>cíwu</i> , J <i>tuma</i> , B <i>tím-</i> , K <i>tum</i> , T <i>tām-</i>	
'breast, milk'	<i>()-pi</i>	W <i>p̄-na</i> , P <i>apí</i> , S <i>ipí</i> , D <i>yapu</i> , J <i>ífi</i> , MK <i>apí</i> , B <i>p̄-hu</i> , T <i>ip̄ən</i> ²⁴	Dgl <i>pōpiy</i> , ?Bac <i>bup-tə</i> , Bed <i>fəfau</i>
'brother'	<i>w/v-š-</i>	W <i>yahə-na</i> , SB <i>wuší</i> , J <i>wušá</i> , M <i>vāší</i> , K <i>vəyan</i> , T <i>šən</i> 'elder b.' ²⁵	
'build, mould, weave, plait'	<i>gw-n</i>	P <i>hwun</i> , S <i>wunu</i> , J <i>wan</i> , M <i>yan-</i> , B <i>uən-</i> , ²⁶ K <i>wan</i> , T <i>mun-</i>	Dgl <i>pine</i> , H <i>gína</i> , Hurza, Mboku, Bata <i>han</i> , Ngz <i>nəm</i> ²⁷
'bull' ²⁸	a) <i>dla</i>	P <i>dla harcaka</i> , S <i>dlā-tsəki</i> ; ²⁹	NM *s- 'cow', H <i>sā</i> (pl. <i>shān-</i>), Mg Ngz <i>tla</i> , Tr <i>dla</i> , FB <i>dlən</i>
	b) <i>nim</i>	W <i>mimya-na</i> , B <i>nime</i> , K <i>nim</i> , T <i>nīman</i> , M <i>lambi</i>	
'burn'	a)	W <i>hwa-</i> , P <i>hwubu</i> ;	RS <i>hwoh</i> ; ³⁰
	b)	D <i>hiya</i> , T <i>kər-</i>	Bac <i>hinə</i> , Mg <i>ɣgyu</i>
'bury'	<i>pəs-</i>	W <i>pəš</i> , P <i>p̄su</i> , D <i>pū</i> , JB <i>pəs-</i> , M <i>p̄s-</i> , K <i>pəšə</i> , T <i>p̄iy</i>	H <i>bizne</i> , RS <i>bur</i> , Ngz <i>bədl</i> 'dig' ³¹
'bush (H <i>dāji</i>)'	a)	M 'sakəm;	Ngz <i>žāgəm</i> ;
	b)	P <i>dapa</i> , S <i>madi</i> ;	H <i>dawa</i> ;
	c)	D <i>kuratu</i> , B <i>kya</i>	NM *g- <i>n-</i>
'bushcow, buffalo'	a) <i>kəvən</i>	P <i>l̄evin</i> , S <i>kəvəni</i> , DMBK <i>kəvən</i> , J <i>kənnə</i> ;	NM *k-b- <i>n</i>
	b) <i>tləkəm-</i>	W <i>tləkəm-ai</i> , T <i>tləkəm</i> ³²	
'butterfly'	<i>'tl-p-t</i>	W <i>dləb-ai</i> , J <i>tātabulo</i> , M <i>a'tli-</i> <i>pep̄ir</i> , B <i>lipiti</i> , K <i>tliḡirḡira</i> , T 'sarḡe	Ngz <i>tāpətāpətə</i> , Mg <i>pəlipəli</i> , Kof <i>pəlpəl</i> ³³
'buy' ³⁴	<i>kə/an-</i>	WMB <i>kən-</i> , P <i>kwan</i> , S <i>kumu</i> , J <i>gən-</i> , K <i>kən</i> , T <i>kān</i> , <i>kān</i> , D <i>tuma</i>	
'calabash'	a)	P <i>galka</i> , BK <i>gali</i> , W <i>galiy-ai</i> ;	H <i>kwarya</i> , Ngz <i>gadakuwa</i> , Gwd <i>koriya</i> ;
	b)	T <i>bu'suke</i>	H <i>masaki</i>
'call'	a) <i>k-(y)-</i>	W <i>kəkə</i> , P <i>kí</i> , <i>kā</i> , S <i>kā</i> , K <i>kəy</i> , T <i>kawu-</i> ;	H <i>kira</i> , Jg <i>kol</i> ;
	b) <i>zar-</i>	D <i>zəda</i> , JMB <i>zar-</i>	Ngz <i>dārə</i>

²⁴Tuareg *eḡeḡ*. ²⁵Eg. *sn*, Agaw *sen*. ²⁶W has scrape. ²⁷Sem *bny*, Cush. *mVnV*. Cf. NM *b-n- 'house'.

²⁸Cf. 'cow'. ²⁹C 279 supports *š* lateral. ³⁰Galla, Somali *gub-*. ³¹Bye *bis*. ³²WT also 'roan antelope'. ³³Hebrew *p̄r̄p̄r̄*. ³⁴Cf. 'count'.

'carry'	a) d-m/b-	P <i>duma</i> , S <i>dama</i> , T <i>dābu</i> ;	H <i>dauka</i> , Ang <i>dab</i> , Hurza <i>təv</i> ;
	b) kə/il/y-	W <i>kəy-</i> , J <i>kəy-</i> , kəl-, MB <i>kīy-</i> , K <i>kɛ</i>	H <i>kai</i> 'take', Ngz <i>kakərə</i> , Bac <i>ɲguro</i> , Mg <i>həri</i> 'take', Dr <i>gəre</i> ³⁵
'cat'	(ɲ) <i>gayim</i>	W <i>ɲgayin-na</i> , D <i>ɲgayim</i> , J <i>gayin</i> , B <i>gayin</i> , T <i>gɛman</i> , P <i>ɲgacama</i> , MK <i>gazam</i>	Ngz <i>gayim</i> , Dgl <i>gāyam</i> , Jg <i>gayam</i>
'caterpillar'	a) <i>gugu</i>	W <i>gugu-na</i> , S <i>gungujini</i> , B <i>gwago</i> , K <i>gūgū</i> ;	
	b)	D 'sārā, T 'sāburan	H <i>tsūtsa</i>
'chameleon'	a) (-) <i>tak-</i> , (-) <i>ta'-</i>	W <i>ta'-ai</i> , S <i>tāki</i> , D <i>aca'a</i> , J <i>ate'a</i> , <i>ataya</i> , M <i>ata'a</i> , K <i>tāta'an</i> , T <i>ca'ay</i> ;	FJ <i>tanguwi</i> ;
	b)	P <i>kukwa</i>	Tr <i>xenexene</i> , Kof <i>gagarak</i>
'change into, metamorphose' ³⁶	dz-G-	J <i>jingaya</i> , B <i>dzəgə-</i> , K <i>jəkən-</i> , D <i>jā</i> , T <i>can</i> , cō	
'charcoal'	<i>livin</i>	P <i>avun</i> , J <i>livin</i> , MK <i>livin</i> , B <i>livim</i>	Mg <i>vunyi</i> , Ngz <i>avan</i> 'embers'
'cheek'	k-m-t	W <i>ɣum-ai</i> , P <i>gancəka</i> , D <i>argimər</i> , M <i>awum</i> , T <i>kōkoman</i>	H <i>kumci</i> , Bed <i>hwid-an</i> , RD <i>kapak</i>
'chest'	a) m-'s/'tl-	P <i>matsi</i> , S <i>ma'si</i> , J <i>mu'tlu</i> , B <i>mū'su</i> ;	RD <i>vuaš</i> , ? Bac <i>ndum-tə</i> ;
	b)	D <i>gubadu</i> , M <i>garabu</i>	H <i>gaba</i> 'front', Bed <i>kuva</i>
'chicken, fowl'	dl-rk-	W <i>dlərkəy-ai</i> , P <i>dlurkiya</i> , S <i>dlərkayi</i> , MK <i>dlirki</i> , T <i>cukuran</i> 'cock'	NM *{}k-r- 'fowl', *k-z- 'chicken', *g-z- 'cock', H <i>zakara</i> 'cock', RB <i>šikōr</i> , Sukur <i>takur</i> , Mdr <i>tsakala</i> , S.Mg. <i>təka</i> , Bac <i>diyek-tə</i> 'chicken', <i>dekey</i> 'cock' ³⁷
'chin' ³⁸	(a) <i>gam</i>	D <i>agama</i> , J <i>gurma</i> , M <i>agam</i> , K <i>gam</i> , T <i>ngam</i> 'calən	H <i>gēmu</i> 'beard', Ngz <i>gumci</i>
'climb' see 'mount'			
'close' see 'cover'			
'cloud, storm'	a) <i>lakwa</i>	W <i>lakw-ai</i> , S <i>laɽkwa</i> , D <i>alakwa</i> ;	
	b)	P <i>livyin</i> , B <i>ləfukə</i> , K <i>ləfufu</i>	

³⁵PC *Kər/l-. ³⁶See 'turn'. ³⁷Bye *andirhe* 'chicken, cock'; Ar *dɛk* 'cock'. Hebrew *zxr*. C325. ³⁸See 'jaw'.

'cold'	a) <i>ɲ-d-d'</i>	J <i>radada</i> , M <i>reded</i> , B <i>rādi</i> , K <i>reddəna</i> , T <i>rēdada</i> , D <i>riri</i> , P <i>rey</i> , W <i>rabibya</i> ;	Mg <i>ləɖəɖu</i> , H <i>dāri</i> , Tr <i>ndolndol</i> , Bac <i>talitali</i> ;
	b) <i>s-m-d'</i>	P <i>səndi</i> , D <i>sumbudu</i> , T <i>šidan</i> (?)	Mg <i>yamady</i> , Msg <i>simer</i> , ? H <i>sanyɪ</i> < * <i>samɪ</i> ³⁹
'come' ⁴⁰	<i>buw-, tuw-</i> ⁴¹ (suppletive forms)	W <i>buw-</i> , <i>ɟak-</i> , P <i>dav-</i> , <i>cuw-</i> , D <i>mbu-</i> , J <i>bō</i> , <i>du-</i> , M <i>bō-/bu-</i> , <i>tu-</i> , B <i>bū</i> , <i>tu-</i> , K <i>bō-/bū-</i> , T <i>bā-</i> , <i>tō</i> , S <i>'ta</i> , <i>taba</i> .	
'cook'	<i>d-k</i>	W <i>təkən</i> , K <i>təkən</i> , D <i>danga</i> , B <i>dəɣ</i> , ST <i>duw-</i> , P <i>du</i> , JM <i>diy-</i>	RB RF <i>dɪ</i> , RS <i>dyeɲ</i> , RB <i>jih</i> , Bo1 <i>danku</i> , Gwd <i>doho</i> , Dr <i>dinge</i> , Bac <i>jikq</i> , Mg <i>ta</i> ⁴² ?H <i>dumi</i> warmth
'copulate' ⁴³	a) <i>ɲo/in-</i>	WK <i>ɲən-</i> , J <i>ɲin</i> , M <i>ɲinyarinyo</i> ;	Ngz <i>ɲənə</i>
	b)	P <i>ɟɔɔ</i> , T <i>ɟəl</i> , S <i>wur</i> , B <i>wur-</i>	
'combin'		W <i>pingina</i> , P <i>pangwa</i> , J <i>pandu</i> , M <i>kwakwi</i> , K <i>gwayku</i> , D <i>gikwa</i> , S <i>kiki</i> , T <i>pēden</i>	Bac <i>bonge</i> , H <i>bargi</i> ⁴⁴
'corpse'	<i>viɣ-</i>	W <i>viw-ai</i> , P <i>viya</i> , S <i>vɪɣi</i> , J <i>viluwa</i> , M <i>viyau</i> , B <i>vɪ-hu</i> , K <i>viyu</i> , T <i>vune</i>	R (BDS) <i>fun</i> , Ngz <i>guvu</i> , Bac <i>wē</i> , H <i>gāwa</i>
'cough(n.)'	<i>'i/atl-</i>	W <i>itl-ai</i> , P <i>atlo</i> , S <i>atli</i> , D <i>itla</i> , J <i>itla</i> , M <i>itli</i> , K <i>atli</i> , T <i>ātlen</i> , B <i>ditli</i> (vb.)	Nga <i>ādla</i> , Mg <i>utla</i> , Dgl <i>ɛtyɛ</i>
'count' ⁴⁵	a) <i>ki/ən-</i>	W <i>kɪn-</i> , P <i>kən</i> , S <i>kənu</i> , JB <i>kən-</i> , M <i>kən-</i> , K <i>kin</i> , T <i>kən-</i> ;	H <i>kidaya</i> , <i>kididdiga</i> , <i>kirga</i> , RF <i>kwat</i> , Kof <i>kwan</i>
	b)	D <i>duwa</i> , P <i>du</i> ^{46, 47}	
'cover, close'	<i>'ts/dz-ɬ-</i>	W <i>zabə</i> , P <i>jabu</i> , S <i>'səbu</i> , D <i>zabā</i> , J <i>duba</i> , M <i>zəbw-</i> , B <i>jab-</i> , K <i>'təbə</i> , T <i>zəb-</i>	Ngz <i>cimə</i> , Mg <i>ndzəbu</i> , Dgl <i>dibire</i> , Bed <i>dluwa</i>
'co-wife'	<i>kin-</i>	W <i>kin-ai</i> , J <i>kina</i> , MK <i>kin</i> , B <i>kinā</i> , T <i>kɪne</i> , P <i>asin-cəka</i>	
'cow'	<i>ɣ-ɲ-w</i>	W <i>ɣəyiw-ai</i> , P <i>har-cəka</i> , J (ɣ) <i>yərwa</i> , M <i>yuru</i> , B <i>yərwa</i> , K <i>wuru</i> , T <i>yururuwe</i>	RS <i>'arwa</i> 'bull', H <i>karsana</i> 'heifer' ⁴⁸
'crab'		J <i>ɪrlakwa</i> , M <i>atleki</i> , K <i>gwatle</i> , T <i>likākiye</i> , W <i>ngərbai</i> , D <i>gɪnbey</i> (? <w)	Bac <i>xurak-tə</i> , H <i>kāguwa</i>

³⁹Tuareg *esamed*. ⁴⁰See 'go'. ⁴¹Hebrew *bwɔ*. ⁴²Bye *tikwi*, *deha*. Ar *ɬbx*. ⁴³Cf. 'eat'. ⁴⁴PC **gw-n/ɲG-*.

⁴⁵Cf. 'buy'. ⁴⁶Bye *ɟigwi*. ⁴⁷In P, 'count' and 'cook' are homonyms. ⁴⁸Bye *yɪwe*, Semitic 'ARX-heifer'.

'creep, crawl'	mb-g-d	W mburd-, M mbagəḏḏ, B burda-burda(?), K burda(?) (n.), T mburda(n.)	
'crocodile'	k - l/ɾ/-m	W kəyɪn-na, P kɛn, S kayami, D hurin, J kələn, M kiyəm, B kəyəm, K kiyim, T kɛman	NM *k-ɾ-m ⁴⁹
'crow'		M ʒarakɔ, K zarazar, T jären	KK nzaraku, Kilba salagu, Msg dzelleke
'cry' see 'shout, weep'			
'cultivate' see 'hoe'			
'custard apple, (Anona senegalensis)'	a) -ruw/h-y- b)	S ruwi, M aruwai, B ruwai titse, K ruwai, T ruhuyi W mbəri	
'cut, slaughter'		WJBK tləkət-, S tsəkəru, P tsəkər	Ngz tlətlərɔ 'cut into strips', Mg tlia 'cut open', Tr dlara 'cut with knife', H tsāga 'cut, tear'
'cut, chop'	K-'ts/ 'tl-	P kəsā, W gəts-, S tsɪ, D (a)kə'cu, J kə'tl, B kũ	
'dance'	a) lɔ/ak- b) zɔ/ab-	WK lək-, P laka, D luka, J lakwara 'play'; S zɔba, M zabu, B zabuzabu, T zābe	H rawa 'dance', rangwada 'sway' Nga suwāri, Tr sapa, Dgl wāre
'darkness, night'	a) d-b/v-n b) 'c-m-z-	B divim, K dəvən, T jubune; W cyamaza-na, M 'camaza, B 'camazɛ, K 'camazɔ, P tsɪ, D 'sam, T 'sɛn	Ngz dəvid 'night', NM *b-d-'night'
'darkness'	a) d-l/ɾ-m	S dəndələmi, D dərəndərən, J dandilam, M dəndələm	Tmk digləm, ? H dare ⁵⁰
'daughter' see 'girl'			
'day' see 'sun'			
'day, 24hr.' ⁵¹	-s-n	W əsāna, P ašin, S surɪ, D yisa, J isan, M suno, B dīsan, K asan	

⁴⁹Bye lɛma, Kan karam. ⁵⁰Ar ʒ-l-m. Bye dulumə (Cohen) C 353. ⁵¹Cf. 'sleep'.

'decay, rot'	a) rad-	W <i>radə</i> , S <i>rada</i> , BK <i>rad-</i> ;	? Mg <i>ida</i> , ? Bac <i>kudə</i> ;
	b)	P <i>budu</i> , D <i>budu</i> ;	
	c)	J <i>kəruwa</i>	H <i>rube</i> , Ngz <i>təhəbə</i>
'deep'	a) <i>kulkul</i>	M <i>kulkul</i> , B <i>kulkulo</i> , K <i>kulkulna</i> , T <i>lukəlukə</i> ; ⁵²	
	b)	P <i>darti</i> , D <i>dāru</i>	Dgl <i>dūrum</i>
'descend, unload'	a) f-r-	S <i>furu</i> , B <i>fur</i> , T <i>war-</i> ;	Dgl <i>pāye</i> , Ngz <i>fuwə</i> , R(BD) <i>fur</i> ;
	b)	J <i>jahu</i> , S <i>dəgu</i> , M <i>daw-</i> ;	Bac <i>jang-</i>
	c)	WK <i>pə'ts-</i> , D <i>šafa</i>	
'dew'	(-)mad-	W <i>mad-ai</i> , PD <i>mada</i> , S <i>mudi</i> , J <i>amada</i> , M <i>amadi</i> , B <i>mamadə</i> , K <i>madə</i> , T <i>mo'oyi</i>	Ngz <i>madāwa</i> ⁵³
'die'	<i>miy-</i>	WPMB <i>miy-</i> , S <i>miyu</i> , D <i>matu</i> , J <i>mul-</i> K <i>miya</i> , T <i>mōsen</i> ⁵⁴	NM *m-t-
'dig'	<i>ts-k-</i>	W <i>tsəkə</i> , P <i>jiga</i> , S <i>šaya</i> , D <i>cəka</i> , M <i>'siy-</i> , B <i>šəyə</i> , K <i>'səkə</i> , T <i>cək-</i>	KK <i>cak</i> , ? H <i>haka</i> , ? Gwd <i>yanka</i>
'dirt'	a) d-	P <i>dakwankwan</i> , D <i>daba</i> , B <i>ndəbəl</i> , T <i>lūban</i> ;	? NM *d-kd-, Ngz <i>nyum</i>
	b)	J <i>adəri</i> , M <i>tiri</i> , K <i>turku</i>	
'do' see 'make'			
'dog'		S <i>kədəri</i> , D <i>adā</i> , B <i>diya</i> , T <i>ātuki</i> (f.), W <i>iye-na</i> , P <i>'yara</i> , J <i>ilī</i> , K <i>ī</i> , M <i>i</i>	KK <i>ada</i> , Ngz <i>ja</i> , Somrai <i>dogoro</i> , Tr <i>yāda</i> ⁵⁵
'donkey' ⁵⁶	a) <i>žat-</i> ⁵⁷	W <i>žyatə-na</i> , D <i>jatū</i> , B <i>žatu</i> , K <i>žatə</i> ;	
	b)	T <i>žākən</i> , M <i>žāki</i> ;	H <i>jāki</i> ;
	c)	P <i>zakumba</i>	Glavda <i>ažungwa</i>
'doorway'	usually <	'mouth of home' but P <i>hwa</i> , S <i>hwulī</i>	
'dove'	a)	J <i>milwa</i> , T <i>wule</i> ;	NM *(N)b-l-
	b) <i>lukw-N</i>	W <i>lukwəm-ai</i> , D <i>alukum</i> , K <i>lukun</i> , B <i>lambutaku</i>	RD <i>ruguta</i>

⁵²W *gwarḡulan* relevant? ⁵³Ar *nadā*, Bye *nada*. ⁵⁴-t a suffix in NB. ⁵⁵Tuareg *əydi*, Somali *ey-*. Hebrew *šiy* 'jackal'. ⁵⁶Cf. 'western waterbuck' (antelopes). ⁵⁷? -t- originally referred to female.

'dream(n.)' ⁵⁸	m-s/šən-	W <i>musən-ai</i> , P <i>masina</i> , S <i>musuni</i> , D <i>māšīn</i> , J <i>ambəsana</i> , M <i>amusun</i> , B <i>māšəŋ</i> , K <i>musən</i> , T <i>mušini</i>	
'drink'	si, sa ⁵⁹	WPSK <i>sa</i> , T <i>šā</i> , JB <i>si, sa</i> , M <i>sa-</i> , D <i>cā</i> NM <i>*s-</i> , Bac <i>sobo</i>	
'drive away'	ra/ək-	W <i>ṛək-w-</i> , P <i>raku</i> , S <i>ṛəkə</i> , J <i>ṛək-</i> , MB <i>ṛəkə-</i> , K <i>ṛəki</i>	Ngz <i>raka</i> , Bol <i>ṛokk-</i>
'drum'		H <i>ganga</i> usually elicits some form of the same widespread root but T has <i>gundaren</i>	Cf. Ngz <i>kanjau</i>
'dry up'	'tsə/uf-	W <i>tsəfə</i> , P <i>tsəfa</i> , S <i>tsəfu</i> , D <i>'cəfu</i> , J <i>kyəw-</i> , M <i>'səf-</i> , B <i>tsəfa-</i> , K <i>tsəfa-</i> , T <i>'suḥu-</i>	Mg <i>šū</i> , RD <i>hyef</i> , H <i>kyafe</i>
'dry season'		collocations with the two forms of 'sun'	q.v.
'dungbeetle' ⁶⁰		W <i>wadə-na</i> , T <i>wuruwuren</i>	Ngz <i>mbūda</i> , H <i>būzūzu</i>
'dust'	a) <i>kw-t-y</i> b)	J <i>kutaya</i> , M <i>kwatai</i> , B <i>kuti</i> ; K <i>malakə</i>	Mubi <i>kidi</i> ; R(DB) <i>ḥura</i> , Dgl <i>burintal</i>
'ear'	kum- ⁶¹	W <i>kum-ai</i> , P <i>huma</i> , S <i>kunta</i> , D <i>huma</i> , J <i>kuma</i> , M <i>kumai</i> , B <i>kuma</i> , K <i>kum</i>	Bol KK <i>kumo</i> , RS <i>kumi</i> , H <i>kunne</i> , Ngz <i>kəma</i> 'hear'
'early, formerly'		W <i>wudi</i> , K <i>wudə</i> , D <i>kyawudu</i> , T <i>dawriye</i>	H <i>dauri</i> , <i>dawuri</i> , Bed <i>wātwāta</i> 'quickly'
'earth, ground'	a) <i>m-z-</i> b) <i>h/h-'tl-</i> c)	W <i>məz-ai</i> , M <i>muzai</i> , K <i>amza</i> ; P <i>ri'tla</i> , S <i>ṛə'tlu</i> , B <i>ri'tli</i> , T <i>hī'tle</i> ; D <i>kyada</i>	? RF <i>mašwa</i> 'town'; ? RD <i>'ase</i> 'field', H <i>ḥasa</i> ; Tr <i>kid</i> , Jg <i>kito</i>
'eat, e.g. mush'	ti, ta ⁶²	W <i>ta, tau</i> , S <i>tū</i> , D <i>cu</i> , JB <i>ti, tā</i> , M <i>ta-</i> , K <i>ta</i> , T <i>cū</i>	NM <i>*t-</i> , Bac <i>tulo</i>
'eat, e.g. meat'	a) <i>ṛəm-</i> ^{62a} b)	WJM <i>ṛəm-</i> , P <i>ṛum-</i> , S <i>ṛəmu</i> , B <i>ṛəm-</i> , <i>rem-</i> , KT <i>ṛəm</i> ; W <i>žṛmw-</i>	Dgl <i>ēme</i> ; NM <i>*z-m-</i>
'egg'	a) <i>'ts-w/h-</i> b)	W <i>tsū-na</i> , S <i>'sawī</i> , B <i>'cū</i> , K <i>'sū</i> , P <i>asi</i> , J <i>ašu</i> , M <i>atsu</i> , T <i>sohoyi</i> ; D <i>akin</i>	Ngz <i>zəbai</i> 'eggs sat on but not hatched', Ang <i>eš</i> ; NM <i>*(N)g-(ṛ)</i> , Ngz <i>agwai</i>
'elbow'	Kw-Kw-š-	P <i>gangašī</i> , S <i>kukuša</i> , J <i>gugwasi</i> , B <i>gwagwišə</i> , K <i>gugusə</i>	Gwd <i>kukunšuruxwa</i> , H <i>kišingida</i> 'leaning on elbow', Karbo <i>kociŋgeden</i>

⁵⁸See 'sleep'. ⁵⁹Where a language has both forms, e.g. JB *-i* is completed, *-a* continuous.

⁶⁰Cf. 'faeces'. ⁶¹*tl/s-m-* commoner in Chadic. ⁶²*i/a* alternation as for 'drink'. ^{62a}Cf. 'copulate'.

'elephant'	a) <i>t/cakal-</i>	W <i>cakal-ai</i> , D <i>acakala</i> , K <i>takyal</i> ;	Dr <i>tukulak</i> 'huge';
	b) <i>y-w-n</i>	S <i>yōwani</i> , J <i>yawan</i> , M <i>yəwun</i> , B <i>yawən</i> ;	NM * <i>g-w-n</i>
	c)	P <i>laŋga</i>	
'embrace'		WD <i>kamb-</i> , T <i>hābu</i> , P <i>gurbu</i> , J <i>ŋgal-</i> , Bac <i>kpwiripə</i> , ? H <i>karbi</i> 'accept'	
		S <i>gəhawī</i> , B <i>gəfək-</i> , M <i>kwiwan-</i>	
'enter'	a) <i>zā-</i> , <i>zau</i>	WK <i>zau</i> , PS <i>za</i> , JM <i>za-</i> , B <i>zā-</i> ;	
	b)	D 'cəgu	H <i>šiga</i> , Gis <i>ce</i> , Mat <i>skə gay</i>
'entrance hut'	a)	W <i>var-ai</i> , K <i>var</i> , P <i>fīla</i> , M <i>bali</i> , B <i>pula</i> ;	
	b)	S <i>nzaŋi</i> , T <i>dlābi</i> ;	? H <i>zauze</i> , Dr <i>šam</i> ;
	c)	D <i>akinju</i>	? Gwd <i>kereŋwa</i>
'envelop'	a) <i>baz-</i>	W <i>baz-</i> , D <i>baza</i> , K <i>bazə</i> , T <i>vəza</i> ;	
	b)	P <i>bakusu</i>	Gwd <i>kumuša</i>
'evening'	a) <i>hə/iz/ž-</i> ⁶³	W <i>həza(m.)</i> , M <i>həza</i> , B <i>rižā</i> , K <i>riza</i> , T <i>vērīže</i> ;	
	b) ⁶³	S <i>hurcu</i> , P <i>fīrci</i>	? H <i>maraiče</i>
'exchange'		W <i>tsək-</i> , M 'sāw-, B 'səki-, K 'səkə, J <i>jəg-</i> , T <i>jikan(n.)</i> , S <i>sungəl-</i>	? Gwd <i>šewoye</i> , ? H <i>sauya</i> 'change'
'eye'	'-t-()	W 'ciy-ai, P <i>ata</i> , S <i>ita</i> , T <i>āce</i> , M <i>aiti</i> , B <i>tiran-hu</i> , ⁶⁴ K <i>təwi</i> , D <i>adō</i> , J <i>idā</i>	NM *-d- ^{64a}
'face'		S <i>sunuwi</i> , J <i>zungwar</i> , B 'cuwo, T <i>təmber</i>	Ngz <i>jampel</i>
'faeces'	<i>wu/adi/ə</i>	W <i>wadi-na</i> , PS <i>wudi</i> , MK <i>wadə</i> , B <i>wādə</i> , D <i>a'iyu</i> , T <i>wa'an</i> , J <i>wadi</i>	Somrai <i>ajine</i> 'kot'
'fall'	a)	W <i>dəd-</i> , K <i>dədə-</i> , S <i>da</i> , BT <i>dā-</i> , M <i>dəd-</i> , P <i>nda</i> , J <i>nda-</i> ;	? NM *t-d-;
	b)	D <i>ŋgya</i>	KK <i>ŋgat</i> , Tr <i>ngədi</i>
'farm'	<i>s/šə/ina</i>	W <i>səna-na</i> , P <i>sina</i> , S <i>šinawi</i> , D <i>səna</i> , J <i>suna</i> , M <i>šim</i> , B <i>šina</i> , K <i>sən</i> , <i>šin</i> , T <i>šinan</i>	

⁶³? one etymon B-*h-ž/š-*. ⁶⁴B has -*hu* for body parts. ^{64a}Afar, Saho *inti*, Tuareg *cəf*.

'fart(v.)'	ɾ-d-	W ɾɔd-, P ɾidi(n.), S ɾurudi, D ɾɔda, J ɾadu(n.), M ɾedi, B ɾadi(n.), K ɾɔdɔɾɔdɔ, T ɾɔ'en(n.)	Ngz wuɿ'yi, Dgl wede, Dr wodo
'fat (animal)'	h-d/'-ɾ	W ha'ara(m.), P hidur, S hāɖɔɾi, MK ha'ar, B xɔdɔɾ	NM *K-d-ɾ
'fat(v. and adj.)'	a) ɾ-v-z/ž-	WJK ɾɔvɔz-, M ɾɔvɔž-, S ɾū'suwa, P ɾinsa, B ɾɔvɔzɪsɔ(n.);	? Mat mbuza
	b)	D tɪɔbu, subu	
'fetish, grove, forest'	a)	J kwala, MB kwal, K gali, D gala;	H kurmi, Bac kalagbo-tɔ;
	b)	T kōben	Mg kubu
'fight' see 'war'			
'fill'		P hyangu, W yan-, JMB wan-, K wen, T nɪ-	Dgl mɪne, RB hya, Ngz niyɔ, Mg nyani, nyu, Bac na
'filth' see 'dirt'			
'find, get'	a)	W 'pa-, B 'pu-, K paya, J bɪ;	KK wā, Ngz ba;
	b)	T dū-, S yēwi	Kof dwo, Bac dume
'fingernail'	ɛ-ɾ-b	W ɛɔwɪ-na, P ɛɔɾɛn, D aɔɪɔmba- du, J kuya, M kwargwi, B kawi, K kungwi, T ɛin	Ngz gurbak, H kumba, Karbo korumin 'finger'
'finish'	a) mb-()	P ba, M mba-, B mbā-, K mbiy-, T bū-;	RB mbɪt, Bac mbɔ
	b)	S kwatā, D kudu;	
	c)	W 'cuw-, J kywa-	
'fire'	'ak-w- ⁶⁵	W kɔw-ai, S kuwi, D akuwa, J akwa, M aku, B kuwa, K aku, T ākwe, P pana (< *kwa-n)	Ngz aka, MAT -KWA, Dgl ako
'fireplace'	v-w-	W vuwu-na, P vawi, K vawu, D abukutu, J vuwa-hu, M viyayu, T vōhun	Ngz vakin, H murhu, Dr mukun
'(fire)wood' ⁶⁶	()-di/u()	W dū-na, P diiki, J dēda, B diyu, K dū, T dūn	? H ice < 'it-, ? R YIT-T, ? Bac kada
'fish'	a) γɔd-	W γɔd-ai, M γɔdi, K γɔdɔ, J awuda, T hāti, B gwadzar;	Gwd gunda, RB guše, Somrai gose, goze; ⁶⁷

⁶⁵Br t-akā-t, PC *-kw-. ⁶⁶See 'tree'. ⁶⁷C129, Ar hūt, Eg. h'.t.

	b)	S <i>kəŋfi</i>	NM * <i>k-ŋf-</i>
'fish(vb.)'		P <i>cucu</i> 'fishing', D <i>acu</i> 'fisherman', K <i>ciwu</i> 'fishing'	H <i>su</i> 'fishing', Bed <i>siyi</i> ⁶⁸
'flea'	a)	S <i>zudəra</i> , J 'sando, M <i>azandar</i> , P <i>dida</i> ;	H <i>tsando</i> 'tsetse';
	b)	D <i>agurmutu</i>	H <i>kuma</i>
'flower'		W <i>rədlə-na</i> , J <i>aridlu</i> , K <i>ridli</i>	
'flour'	<i>fiy-</i>	W <i>fiy-ai</i> , P <i>fiya</i> , SB <i>fiyi</i> , D <i>aŋəta</i> , Ngz <i>apta</i> , Bac <i>umbotə</i> , Mg <i>əmpu</i> ⁶⁹ J <i>aŋəl</i> , MK <i>fi</i> , T <i>fiye</i>	
'fly(n.)'	'-t-w-	W 'ciwi-na, P <i>atuwi</i> , D <i>ajē</i> , S <i>tō-tsəki</i> , J <i>adūdu</i> , M <i>atiwi</i> , B 'tatu, K <i>tyuwi</i> , T <i>ātun</i>	RF <i>windiŋ</i> , Msg <i>aduwi</i> , Dgl <i>diwo</i> , Ngz <i>juwa-k</i> ⁷⁰
'fog'	<i>ba'ta/ə</i>	W <i>bata-na</i> , PJ <i>bata</i> , D <i>abata</i> , MK <i>ba'tə</i> , T <i>ŋəcan</i>	H <i>būda</i> , Tr <i>ponda</i>
'follow'	a)	D <i>žibu</i> , W <i>tav-</i> , PS <i>taŋ-</i> , T <i>cō</i> ;	Mg <i>zəbū</i> , L <i>zbi</i> ;
	b)	M <i>dīy-</i> , K <i>də</i>	Ngz <i>dəg-</i> , Bac <i>kwadə</i>
'foot, leg'	a) <i>šəŋkwa</i>	M <i>šagu-hu</i> ;	RD <i>sakur</i> , Ngz <i>zəgəŋ</i> , ? NM * <i>s-ŋ-</i> ;
	b)	P <i>ciman</i> , S <i>tsəma</i> , D <i>ašəma</i> , K <i>tsumakə</i> , M <i>tsunai</i> , B <i>tsəma</i> ;	
	c)	W <i>gərdai</i> , <i>ŋgarai</i> , M <i>aŋgar</i> , T <i>gərde</i>	Gis <i>ngəzaŋ</i> 'calf's leg'
'forest' see 'fetish'			
'forge'	<i>kuŋ-</i>	W <i>kuŋə</i> , P <i>kuŋa</i> , M <i>kuŋ-</i> , K <i>kuŋə</i> , J <i>guŋ-</i> , S <i>kwatla</i> , D <i>kwatlu</i>	Bol <i>guw-</i> , Paduko <i>kədlə</i> , Duwai <i>ka-</i>
'forget' ⁷¹	a) <i>mam-</i>	SJ <i>mama</i> , M <i>man-</i> , B <i>mamw-</i> , P <i>mbambur</i> ;	NM * <i>m-n()</i> -;
	b)	W <i>taw-</i> , D <i>tawa</i>	Ngz <i>tuwayə</i>
'fowl' see 'chicken'			
'frog' see 'toad'			
'fry' ⁷²	<i>kaw-</i>	WJM <i>kaw-</i> , P <i>ku</i> , S <i>kū</i> (? <i>kuγ</i>), K <i>kəw</i> , T <i>kuwa</i>	Dgl <i>ogiye</i> , Ngz <i>kauyə</i> , Tangle <i>kawi</i> 'roast' ⁷³
'gather, join, meet' ⁷⁴	a) <i>pā-</i>	WM <i>pa-</i> , KT <i>pā-</i> , P <i>pa</i> , D <i>pām</i> , B <i>pu-/pa-</i> ;	Bac <i>paya</i> ;

⁶⁸Proto-Bantu **swe*. ⁶⁹PC *'-p-t-. ⁷⁰Bye *tiŋa*; PC *()-D-w/ŋ. ⁷¹See 'lost'. ⁷²See 'roast'.

⁷³Bye *kalo*. ⁷⁴Cf. 'cover'.

	b)g-m-	JMKWD;	NM *g-m- 'meet', Ngz <i>ndāgəmə, zəbə</i> ;
	c)	W <i>nzəb-</i>	R (DB) <i>s-but, Mg dabu</i>
'gazelle' see under 'antelopes'			
'giraffe' ⁷⁵		P <i>jilele dapa</i>	
'girl, daughter'	<i>wun-</i> ⁷⁶	W <i>wun-ai</i> , MK <i>wun</i> , S <i>ūna</i> , T <i>une</i> , B <i>wūna</i>	Ngz { <i>wun</i> 'son', <i>wunya</i> ⁷⁷ }, RS <i>foy</i>
'give'	a)	W <i>ca-</i> , J <i>ši, ša</i> , MB <i>ts-</i> , K <i>ciy-</i> , T <i>dā-</i> ; ⁷⁸	RS <i>ndi</i>
	b)ng- <i>h/n</i>	P <i>nge</i> , S <i>gəna, gana</i> , D <i>ngə</i>	
'give birth'	<i>vu/ərd-</i>	WM <i>vurd-</i> , KT <i>vərdə</i> , P <i>vərdā</i> , S <i>vəd-</i> , D <i>vəra</i> , M <i>vurk-</i> , B <i>vərk-</i>	Bud <i>wuli</i> 'child', Tr <i>woy</i> 'child', Dgl <i>wē</i> ⁷⁹
'go' ⁸⁰	<i>ba-, ta(w)-</i> (suppletive forms)	J <i>ba-, da-</i> , MBK <i>ba-, ta-</i> , D 'a- <i>jawa</i> , T <i>bə-, cu</i> , W 'tau, P <i>ta</i> , S <i>tuwa</i> , P <i>tuni</i>	NM *b-, H <i>tafi</i> , RS <i>ḡay, du</i> , NM *d-n- 'go (away)', Ngz <i>təḡə</i> 'enter' ⁸¹
'go out' ⁸²	(m)b-- ⁸³	MKT <i>bō-</i> , P <i>mba</i> , J <i>mba-</i> , S <i>ba</i> , W <i>var-</i> , D <i>səbu</i> , B <i>bā-</i>	NM *p-t- ⁸⁴ , Ngz <i>vəṛə</i> , Mg <i>ba</i>
'goat'	'akw- ⁸⁵	W <i>aw-ai</i> , J <i>akwa</i> , M <i>ahu</i> , K <i>ahun</i> , P <i>a-cəka</i> , B <i>gikyə</i> , S <i>yāni</i> , D <i>aba</i> , T <i>ufe</i>	NM *k-, Ngz <i>āku</i> , Dgl <i>awko</i> , Mubi <i>wegiri</i> , L <i>ūfu</i> , RB <i>wo</i> 'male goat'
'goat, male'	'ts-G	D <i>a'sika</i> , M 'cangu, T 'san, T 'sargen, J <i>akyangwa</i> , W 'ci <i>ca-na</i> , S <i>dənzi</i> , K <i>cici</i>	Bura <i>ncuwa</i> , RF <i>ndakus</i> , RB <i>šikyen</i> 'goat' ⁸⁶
'god, sky'	γ-nš-	M (γ) <i>yinsə</i> , B <i>yənši</i> , K <i>Yumši</i> , T <i>yənsen</i> , W <i>ins-i-na</i> , P <i>šinda</i> ⁸⁷ , D <i>akitakwa</i> ⁸⁷ , S <i>igani</i>	? Ngz <i>kākasku</i> , ? Mg <i>ifu</i>
'good, beautiful'	mb-n	W <i>wiyə-mban-ai</i> , M <i>ambar</i> , K <i>mban</i> S <i>amberi</i> ⁸⁸ , J <i>mur</i> , B <i>dūmawan</i> , T <i>gāman</i> , P <i>an'uwan</i>	Ngz <i>bəlan</i> , Tr <i>mbari</i> , Mat <i>mbu</i> , Dgl <i>mēram</i> , ? NM *g-N-, Mg <i>mna</i> ⁸⁹
'gown' see 'robe'			

⁷⁵See 'bush'. ⁷⁶See 'son', 'give birth'. ⁷⁷Ar {*'ibn* 'son'
bint- 'daughter'. ⁷⁸B has *i/a* alternation, see
'drink'. ⁷⁹Ar. *w-l-d.*; Bye *firi* 'birth'. ⁸⁰See 'come'. ⁸¹Bye *ba(i)*. ⁸²See 'die'. ⁸³NB 'ex-
tract' often is derived from this root. ⁸⁴-*t* perhaps a suffix. ⁸⁵Bye *ab*; C18 PAA *akw-.
⁸⁶PC has initial labial, cf. H *bunsuru*, Bed *mazar-ən*, Mg *mənci'u*. ⁸⁷The P is feminine, ? -*da* an
old suffix. But the D is masc., though -*akwa* is a feminine suffix. ⁸⁸From the Gowers Lists.
⁸⁹PC *mb-(*h*)-.

'grandfather, grandson' ⁹⁰		W <i>jiji-na</i> , P <i>jiji-ti</i> , SK <i>didi</i> , T <i>cin</i> 'g.father', <i>cūwun</i> 'g.son'	Gis <i>dide</i> 'g.f.', 'g.s.', Bac <i>jiji</i> 'g.f.', Mg <i>ciji</i> , <i>iji</i> , 'g.parent', ? H <i>jika</i> 'g.child'
'grandmother, granddaughter' ⁹¹	<i>kukwa</i>	W <i>kukw-ai</i> , P <i>kukwa-ti</i> , S <i>kuku</i>	Bac <i>kukə</i> 'g.m.'
'grandparent, grandchild'	<i>kaka, kākā</i>	W <i>kaka-na</i> , P <i>kaka-ti</i> , JBK <i>kāka</i> , D <i>kākā</i> , M <i>kaka</i> ⁹²	
'GRASS'	a) (-)was-	W <i>wasə-na</i> , B <i>wāsə</i> , K <i>wasisi</i> , M <i>awašu</i> , J <i>awaši</i> , S <i>lāsī</i> , P <i>wei</i> , D <i>asa'atu</i> 'spear g.';	RB <i>munzār</i> 'thatching g.', Ngz <i>azəm</i> , Tr <i>wuzən</i> , Mg <i>psar</i> ;
	b)	T <i>tohoy</i>	? H <i>ciyāwa</i>
' <i>Cymbopogon</i> <i>giganteum</i> '	<i>ts-n</i>	MK <i>tsar</i> , T <i>tsirin</i> , J <i>ajara</i> , B <i>vīzən</i>	H <i>tsaure</i>
'spear grass (elephant g.)'	<i>s/š-p-</i>	J <i>supa</i> , M <i>šipur</i> , K <i>šipi</i> , T <i>šūpe</i>	
'grave' ⁹³		W <i>γyan-na</i> , S <i>yāšingani</i> , J <i>γma</i> , B <i>γar</i> , M <i>iyam</i>	H <i>kušewa</i> , Gwd <i>kunša</i> , Kof <i>kəcer</i> , Mg <i>hu</i> , Tr <i>kidip</i> , Geji <i>garzubdi</i>
'grind'	<i>ɖənd-</i>	WBK <i>dən-</i> , J <i>dina</i> , M <i>dən</i> , T <i>dar-</i> , P <i>tənda</i> , S <i>tidi</i> , D <i>ɾəta</i>	Ngz <i>dəndə</i> , Gwd <i>reda</i>
'grindstone'	<i>v-n</i>	W <i>vən-ai</i> , P <i>vanka</i> , J <i>avəna</i> , M <i>vun ma dən</i> , B <i>fəfəm</i> , K <i>vən</i> , T <i>ɬfə</i> <i>deren</i>	Ngz <i>vənyī</i> , Dr <i>bunī</i> , KK <i>bəni</i> , Msg <i>fūnī</i> 'mountain' ^{93a}
'ground' see 'earth'			
'groundnuts' ⁹⁴	() z/ž-w-	W <i>zuw-ai</i> , P <i>zuwe</i> , S <i>žt</i> , D <i>azika</i> , <i>ažika</i> , M <i>zuwai</i> , T <i>tuwe</i> , B <i>žuwai</i> , J <i>azuweya</i>	R(DSK) <i>njuku-</i>
'ground squirrel'	a)	B <i>tar</i> , M <i>atar</i> , J <i>tara</i> , P <i>kwattara</i> , S <i>tur-tsəki</i> ;	
	b)	W <i>lɬ-na</i> , D <i>alɬ</i> ;	
	c)	K <i>zabahən</i> , T <i>zabakan</i>	
'grow' ⁹⁵		W <i>tla</i> , P <i>da</i>	? Ngz <i>rawa</i> , Bac <i>la</i>
'guest' see 'stranger'			
'guinea corn, sorghum' ⁹⁶	a) ž/zu()	W <i>zū-na</i> , MK <i>zu</i> , B <i>žū</i> , T <i>zun</i> , S <i>tlawī</i> ;	Ang <i>šwē</i> , Sur <i>šwā</i> , KK <i>sawa</i> , Bac <i>zumwe</i> ;
	b)	D <i>andirwa</i> , J <i>andira</i> ;	? H <i>dāwa</i> ;

⁹⁰Cf. 'in-law'. ⁹¹Cf. 'in-law'. ⁹²Kan, Tubu, Songhai *kaga*. ⁹³PC *k-s-B; cf. 'hole'.

^{93a}Cf. 'stone' b). ⁹⁴Cf. 'guinea-corn'. ⁹⁵See 'stand up'. ⁹⁶Cf. 'ground-nuts'.

	c)	P aci	H hatsi 'corn (gen.)'
'guinea fowl'		W zabri-yai, K zabur, M zaburakɛ, T sɔbun, B 'capur, J jɔbur, P javuna, D azavuna, S zuhunci	NM *z-b-(n)
'hair'	ngəʒ	W gəʒ-ai, P ɲgeza, S gəzi, J gəza, M agəzu, B ngəzi, K gəzi, T gə'siye, D maza	NM *g-s-, Ngz guzai 'pubic h.', Paduko ɲgusa, MAT NGWZ, H {gāši gēza 'mane'
'hammer'	d-ɣ-m	W diɣəm-ai, M diyum, B duwəm, K dum, J agwadu, S sugwɛni	H guduma
'hand' see 'arm'			
'hang'	tlang-	WD (others borrow H except K kū)	Ngz dləgə, Rf lan
'hare'	a)	W vɪzakw-ai, D avica, J avɛlakwa, B viyaku, T ɔbiɟi;	Ngz vɪda, Mg pitɪ
	b)	P damiki, SMK dang-	
'harp, five- stringed'	b-Sakw-	W məsag-ai, P bɛsakwa, J basakwayu M bizakwai, B bidzakwai, K bɛsakwə	
'harvest (vb.)'	kuw-	WJMB kuw-, K ku, S kəsɔ	Ang gyip, H girbi, RD hwom
'hawk'	ja(ɲ)gər	MB jaŋgər, K jaŋgər, P jagur, J jagər, D ajakər 'kite hawk'	? Ngz dankə, H šāho
'head'	ɣam-	W ɣam-ai, P hama, S ɣami, D ama, J gama, MK ɣam, B ɣamo, T ɔmai	NM *k-(n)
'hear, feel'	a)kuz-	WJK, T kuʒ-;	
	b)(n)d-k-	P nduku, S dəhɪwi, M dəkay-, B dəkə	Mubi jige ⁹⁷
'heart, life, liver'	'c/'ts-nK-	W 'canhə-na, P 'tsinki, S 'ciŋga, D ajukwa, J kyan, M canhəŋ, B 'caŋ-hū	Gwd duciya, H zukāta (pl.), ? Ngz gəsi, Bol zogo
'heaviness' ⁹⁸	nd-Nd-N	WPM ndandan, S ndandarni, D dɛduma, J ndɪmmu, B ndamndam, K ndandam	
'hedgehog'	t-k-š-m	W takašima-na, S təkəʒɪmbi, M atəkusum, B tukušima, K takašim	Ngz ɔtagwaʒam
'help'	(m)bu/ur-	P mbure, S buɪ, D ɟal, J mbur-, M mbur-, B bur-, T buru	RF bam, Mg bar

⁹⁷Galla, Somali ɟ-g-. ⁹⁸Cf. 'unripe'.

'herd, graze'	a)	W <i>ciγə</i> , S <i>tsagu</i> , J <i>dakwa</i> ;	
	b)	D <i>rawā</i> (n.), T <i>ṛā'a</i> ⁹⁹	
'hide(tr.), (intr.)'	a) tag-	WK <i>dag</i> , D <i>taga</i> ;	NM *t-k-;
	b)	D <i>ḡagwa</i> , K <i>pagwu</i> , M <i>puwa</i> , W <i>kwabə-</i> , PJBT <i>pu(w-)</i>	KK <i>benkat</i> , Bol <i>bunk-</i> , Gwd <i>mekye</i> , Ngz <i>bamə</i> , H <i>boy-</i> , Bac <i>bō</i> , Mg <i>mbu</i> ¹⁰⁰
'hippopotamus'	a) <i>jə/ungwa</i>	PD <i>jurḡwa</i> , S <i>jəṛwa</i> ;	Ngz <i>ajagum</i>
	b)	W <i>ndaž-ai</i> , K <i>ndaži</i>	
'hoe(n.)'	a) <i>d-wš</i>	W <i>dauša-na</i> , D <i>duša</i> ;	
	b) T- <i>l/N-p-</i>	P <i>tampa</i> , S <i>dulumi</i> , M <i>tələpun</i> , K <i>tumpə</i> ;	Jg <i>tōfe</i>
	c)	J <i>kəyanga</i> , B <i>kəgəda</i> , T <i>kādige</i>	
'hoe, broad-bladed'	a)	P <i>tari</i> , S <i>ta'ari</i> , J <i>tīla</i> , MB <i>tiyi</i> , K <i>dil</i> ;	
	b)	D <i>šura</i> ;	
	c)	W <i>kas-ai</i> , T <i>kāse</i>	
'hoe, cultivate (vb.)' ¹⁰¹	<i>tlad-</i>	WM <i>tlad-</i> , P <i>tladu</i> , S <i>tlada</i> , K <i>tleyatlēda</i> , J <i>bərda</i> , D <i>mba'a</i>	NM *h-d, RF set 'anpflanzen', Mg <i>γərdū</i> , Bat <i>gyede</i> (n.), Ngz <i>pūdə</i> 'bank up' ¹⁰²
'hole'	<i>γ/gi/ər()</i> -	W <i>gir-na</i> , P <i>ngir</i> , S <i>γəri</i> , D <i>zəlagwa</i> , J <i>γira</i> , <i>γira</i> , M <i>agir</i> , B <i>səyar</i> , K <i>gir</i> , T <i>gəren</i>	Bac <i>gwe</i> , ? Mg <i>ka'u</i>
'home, house, hut'	<i>kam</i>	W <i>kan-na</i> , T <i>kan</i> , MK <i>kam</i> , S <i>kami</i> , B <i>kam</i> , D <i>aka</i> 'home', <i>ina</i> 'hut', J <i>gar</i> 'home', P <i>kulanda</i> 'home', <i>kan</i> 'hut'	? RD <i>hweŋ</i> , KK <i>kwor</i> , Bac <i>hōdye</i>
'honey' ¹⁰³	<i>sukw-m/n-</i>	W <i>sukwan-ai</i> , S <i>sukwuni</i> , JB <i>sukwana</i> , M <i>abi sukwan</i> , K <i>sukwan</i> , T <i>cōkane</i> , P <i>ambi dlikərakuma</i>	Ngamo <i>saxani</i>
'horn'	a) <i>p-r-(k)</i>	W <i>par-ai</i> , P <i>purkiti</i> , M <i>apar</i> , K <i>par</i> ;	Ngz <i>fuwak</i> , <i>mākəm</i> , Bac <i>ḡome</i> , Bed <i>fuw-</i> ;
	b) <i>m-l-m</i>	B <i>malən</i> , T <i>malame</i> , J <i>muwi</i>	RF <i>wararj</i>
'horse'	<i>d-wk-</i>	W <i>duhu-na</i> , P <i>jiki</i> , S <i>dukwi</i> , D <i>adla'a</i> , J <i>dākwa</i> , M <i>duwakə</i> , B <i>dāku</i> , K <i>duhu</i> , T <i>dākən</i>	NM *d-k- ^{103a}
'hunger' ¹⁰⁴	<i>may</i> - ¹⁰⁵	W <i>may-ai</i> , PMK <i>mai</i> , DJ <i>maya</i> , S <i>muyi</i> , B <i>maimi</i>	Ngz <i>maya</i> , Bac <i>miya-tə</i> , Dgl <i>meya</i> , Mg <i>mi</i> , ? Bac <i>ome</i>

⁹⁹Ar *ra'a*. ¹⁰⁰Bye *kwibi-*; PC *ḡ-(). ¹⁰¹See also 'ridge up'. ¹⁰²Semitic *xrθ* 'plough'. ¹⁰³Cf. 'water'. ^{103a}See 'mare'. ¹⁰⁴Cf. 'die'. ¹⁰⁵PC *m-y-.

'hunt'	a)	W <i>le'y-</i> , <i>lālə'a</i> , <i>le'əle'ə</i> ;	
	b)	PS <i>iya</i> ;	
	c)	MB <i>dlar</i>	
'hut' see 'home, house'			
'hyena'	a)	S <i>mbəli</i> ;	H <i>ambuli</i> 'epithet for hyena', Tr <i>mapulu</i> , Mg <i>mabəlaŋ</i> , ? R(SDB) <i>murum</i> ;
	b)	P <i>bétangwil</i> ;	Gis <i>mathwaya</i> ;
	c)	W <i>jarawa'tl-ai</i> ;	Ngz <i>dambādłəgur</i>
	d)	B <i>rəgədaku</i> , T <i>rigiji</i>	
'in-law' ¹⁰⁶	a) c-y-	W <i>jayi-na</i> , D <i>aciya</i> , P <i>coši-ti</i> ;	NM *s-r-, Bac <i>šewu</i> ¹⁰⁷
	b)	SM <i>didi</i> , J <i>dédi</i> , B <i>dadə</i> , K <i>didin</i> ;	
	c)	T <i>n̄h̄n̄nan</i>	
'in-law, female' ¹⁰⁸	a)	W <i>ciyakw-ai</i> , D <i>aciyakwa</i> ;	Gwd <i>šorokyi</i> 'in-law', Tr <i>sərvəki</i> 'in-law', ¹⁰⁹
	b) k-ka	S <i>kuku</i> , J <i>kuka</i> , M <i>kəka</i> , B <i>kakā</i> , K <i>kākan</i> ;	
	c)	T <i>nuwe</i>	Dr <i>nakuluŋ</i> 'female i.l.'
'intestines'	a)	S <i>ruya</i> , D <i>arudu</i> , ¹¹⁰ J <i>rawi</i> , B <i>rawwi</i> , T <i>rohon</i> ;	
	b)	W <i>hwahala</i>	RB <i>hihye</i> , ? Mg <i>yayi</i> , Tr <i>yede</i>
'iron'	<i>mir-</i>	W <i>mira-na</i> , J <i>mira</i> , MK <i>mir</i>	Gis <i>bire</i> , Tr <i>vi(r)</i>
'jaw' ¹¹¹	<i>ŋgam-</i>	W <i>ŋgaŋgən-na</i> , S <i>ŋgamangama</i> , D <i>ŋgaŋgam</i> , T <i>ŋgarma'tle</i> , J <i>hakulaka</i>	
'journey' ¹¹²		W <i>civə-na</i> , D <i>ažawa</i> , K <i>tivi</i> , T <i>dlāman</i>	
'jump'	a) w-y-	W <i>wiy-</i> , P <i>hwi</i> , MK <i>wuya</i> ;	Bac <i>liyə</i> , ? NM *p-r- 'fly, leap';
	b)	T <i>zāren(n.)</i> ;	Bol <i>dur-</i> , H, Tr <i>dir-</i> ;
	c)	D <i>dəku (n.)</i>	RF <i>deŋ</i>
'kernel'	<i>d̄t's-</i>	B <i>d̄t'sa</i> , K <i>d̄t'si</i>	Bac <i>dāse</i>

¹⁰⁶See 'grandfather'. ¹⁰⁷Galla, Somali *sod-*. ¹⁰⁸See 'grandmother'. ¹⁰⁹-*akwa* a NB fem. suffix & ? in PC, see 'mare'. ¹¹⁰? once a collocation ending in 'stomach'?, cf. Mg *wudu* 'stomach'.

¹¹¹ Cf. 'chin', 'cheek', 'bone'. Prob. once a collocation. Cf. also 'rib'. ¹¹²Cf. 'go'.

'kidney'	(t-)kw/ w-ns-	W <i>ɣwurs-ai</i> , P <i>tirkwasa</i> , K <i>ɣwursə</i> , D <i>ara'a</i> , B <i>kuvuna</i> , T <i>ti'səɾəse</i>	Ngz <i>kursəsiya</i> , Gwd <i>congom</i> , H <i>kōda</i> , Bac <i>digor-tə</i> , Mg <i>hulši</i> ¹¹³
'kill'	təɣ-	WB <i>təɣ-</i> , S <i>təɣə</i> , D <i>tū</i> , J <i>tiy-</i> , M <i>təy-</i> , K <i>təy-</i> , T <i>tiyu</i>	NM *p-k- ¹¹⁴
'king'	a) malv- b)	PS <i>malvi</i> , JM <i>malvu</i> , K <i>malvə</i> , B <i>maləvu</i> , T <i>muwun</i> , J <i>muga'a</i> ; W <i>tsāra</i>	Dgl <i>mulma</i> 'kingship' ¹¹⁵ , Gidar <i>mulya</i> , ? Gis <i>boy</i> ; H <i>sarki</i> , RD <i>saram</i> ¹¹⁶
'kite hawk'	a) b) c)	K <i>gadlo</i> , T <i>galawe</i> , B <i>gyalu</i> , ? W <i>gatad-ai</i> ; P <i>l̥tha</i> , J <i>alaliya</i> ; M <i>palaka šuwa</i>	Ngz <i>gazabi</i> ; Bac <i>sowa-tə</i> , ¹¹⁷ H <i>širwa</i> , FM <i>šaru</i>
'knead'	a) TL/lab- b)	WK <i>labə</i> , M <i>lab-</i> , P <i>dlabu</i> , S <i>tlaba</i> ; J <i>nuw-</i> , T <i>nuw-</i> , <i>naw-</i>	? Bac <i>gba</i>
'knee'	ɣw-ɾ-m ¹¹⁸	W <i>ɣwurmu-na</i> , P <i>bərmi</i> , S <i>ɣərma</i> , D <i>gur'tla</i> , J <i>vurmu</i> , M <i>wurum</i> , B <i>w̄rin</i> , K (ɣ) <i>wurum</i> , T <i>bombarən</i>	NM *k-ɾ-m, *F-ɾ-m, Sur <i>kuɣurum</i> , H <i>gw̄wa</i> , Gwd <i>guyamu</i> ¹¹⁹
'kneel, squat'	dəɣw-	W <i>dəɣw-</i> , BK <i>dəgo</i> , S <i>duhu</i> , ? W <i>tsakwat-</i> , T <i>zugu</i>	H <i>tsuguna</i> , Ngz <i>jōkul-</i> ? Bac <i>šulətə</i>
'knife' ¹²⁰	si/əɾn-	W <i>sirn-ai</i> , S <i>səɾni</i> , J <i>səɾna</i> , M <i>səɾəm</i> , B <i>səɾən</i> , K <i>sirən</i>	NM *s-G- ¹²¹
'knot' ¹²²	a) b)	W <i>nzəb-</i> , M <i>nzəb-</i> ; P <i>kurmbutlu</i> , T <i>kōtlu</i>	Gis <i>dzaw</i> 'anbinden'; H <i>kuble</i> ¹²³
'know'	sən-	WJM <i>sən-</i> , P <i>s̄ine</i> , S <i>sən̄wi</i> , D <i>cən</i> , B <i>səni</i> , K <i>sən</i> , T <i>sən-</i>	NM *Z-n-
'lack' ¹²⁴	Kwam-	WM <i>kwa-</i> , P <i>gwam</i> , S <i>gumu</i> , D <i>kudu</i> , J <i>mumu-</i> , B <i>kw-</i> , K <i>kwā</i>	
'laugh(vb.)'	ɣ-m-'ts	W <i>ɣənts-</i> , J <i>wumaš-</i> , M <i>ama's-</i> , B <i>ɣən'sa</i> , K <i>ɣəmətsə</i> , D <i>mēs</i> , T <i>kā'tlan(n.)</i> , P <i>hans̄i(n.)</i>	NM *m-s-, Ngz <i>gamsə</i>
'leaf, leaf of cornplant'		S <i>tlāpi</i> , MK <i>tlipi</i> , B <i>tlipu</i> , P <i>l̥ikwiti</i> , J <i>aluhu</i> , T <i>tlagə</i> , D <i>atlinka</i>	Ngz <i>tlatlamāwa</i> , Tr <i>dlimndə</i> , ? Bac <i>jiba</i> , Pere <i>tlap</i>

¹¹³Bye *tunkwila*. ¹¹⁴Akk *dāku*. ¹¹⁵?Ar *malik*. ¹¹⁶Akk *šarr-*. ¹¹⁷Ar *šūha*. ¹¹⁸PC *gw-ɾm.¹¹⁹Bye *gumba*. ¹²⁰Cf. 'sword'. ¹²¹Ar *sikk̄n*. ¹²²Cf. 'cover'. ¹²³Ar *qaḡal* 'lock'. ¹²⁴Cf.

'lost', 'finish'.

'learn, teach'	<i>gigi(m)-</i>	P <i>gigi</i> , S <i>gigīwi</i> , M <i>gyagiy-</i> , K <i>gigim-</i> , D <i>kuma</i> , W <i>kum-</i>	Ngz <i>gugzə</i> , Ang <i>gam</i> , RF <i>kam</i> 'teach'
'leave' see 'allow'			
'left(side)'	<i>gad-</i>	W <i>dəgadi</i> , J <i>gada</i> , M <i>ga'ai</i> , K <i>gadey</i> , B <i>kadu-hu</i> , ¹²⁵ D <i>aguwe</i> , T <i>kākəsən</i>	NM * <i>g-d-</i> , H <i>hagun</i>
'leg' see 'foot'			
'leopard'	a)	P <i>wura-ciki</i> , K <i>mul</i> ;	NM * <i>w-r-</i> ;
	b)	B <i>gwō-cəkə</i> , J <i>gungu</i> , D <i>kuku</i> ;	Ngz <i>wurak</i> ¹²⁶
	c)	W <i>dansa-na</i>	Mf <i>duwur</i> , H <i>damisa</i>
'lick'	<i>n/lək-n-</i>	W <i>nəkə</i> , P <i>ləkən</i> , S <i>nada</i> , D <i>təna'a</i> , J <i>makən</i> , K <i>nəkə</i> , T <i>na'an-</i> , B <i>nzəkun-</i>	RD <i>lok</i> , Tmk <i>lag</i> , ? H <i>lāsa</i> ¹²⁷
'lie(n.)'		P <i>kwalī</i>	Ang <i>kwolm</i> , Bud <i>kālo</i> , Tr <i>kwatama</i> ¹²⁸
'lie down'	' <i>piy-</i>	W ' <i>piy-</i> ', 'pīw-, BT ' <i>piy-</i> , K <i>piy-</i> , M <i>piyo</i>	Ang <i>pal</i> , ? Gwd <i>ripe</i> , ? Ngz <i>vədə</i> , Bac <i>bə</i> , ? Mg <i>pida</i> , Dgl <i>wedyi</i> 'sleep' ¹²⁹
'lift' see 'stand up'			
'light (not heavy)'	<i>kw-f-f</i>	{ W <i>kwaɸuɸa</i> , T <i>kōɸaɸa</i> , K <i>kwakwaɸa-na</i> P <i>laɸulaɸu</i> J <i>ɸōɸowa(n.)</i> , M <i>ɸowaɸowa</i>	RF <i>ɸiɸyō</i> , Bac <i>pupulak</i> ¹³⁰
'lightning'	a)	W <i>yibak-ai</i> , M <i>dabakta yinsə</i> ;	H <i>walkiya</i> , RD <i>bara</i> 'thunder & lightning' ¹³¹ ;
	b)	K <i>biladu</i>	Ngz <i>wīda</i> , Bac <i>wādilti</i> <i>ngbātə</i> ¹³²
'like, desire, love'	<i>cam-</i>	J <i>sam-</i> , MK <i>cam-</i> , B <i>camw-</i> , T <i>cōm</i>	Gwd <i>šo</i> , Ang <i>cār</i> , Kof <i>ca</i> , Tr <i>cimi</i> ¹³³
'lion'	a)	B <i>gažin</i> , W <i>gagai</i> ;	RB <i>ngiš</i> , Tr <i>ngasan</i>
	b)	W <i>dlələtə-na</i> , D <i>azələtu</i> , M <i>ləntə</i>	
'liver'	<i>sal/y</i>	W <i>say-ai</i> , MK <i>sey</i> , B <i>sē</i> , S <i>šiyi</i> , J <i>sala</i> , P <i>santa</i>	L <i>xsanten</i> , H <i>hanta</i> ¹³⁴

¹²⁵-*hu* body-part, suffix in B. ¹²⁶Ar *abrad*. ¹²⁷Bye *lihas*; Ar *l-h-s*. ¹²⁸Ar *k-ə-b*. ¹²⁹Bye *b'a*.

¹³⁰Ar *xəɸɸ*; ? Bye *šoɸ*. ¹³¹See 'God'; Ar *b-r-q*; Sidamo *bilako*. ¹³²Bac *ngbātə* 'thunder'.

¹³³C 290, Ar *š y'*. ¹³⁴Bye *se*.

'lizard'	a)	W <i>ngɔla-na</i> , P <i>ngɔla-ciki</i> , S <i>kanga-tsɔki</i> , D <i>angɔla</i> ;	
	b)	M <i>abangu</i> , K <i>bangwali</i> , J <i>balakwi</i>	
'locust'	-gwam	W <i>gwam-ai</i> , S <i>gunci</i> , <i>gūci</i> , J <i>gwama</i> , M <i>agwam</i> , B <i>gyami</i> , K <i>gwan</i> , T <i>kōgwame</i>	Ngz <i>angwan</i> , H <i>gam</i> 'species of locust', Bac <i>āwey</i> , Mg <i>aya'i</i>
'long, tall, big' ¹³⁵	a)	P <i>daham</i> , D <i>dāku</i> (n.), J <i>jiga</i> (n.);	RF <i>ndak</i> 'weit', H <i>dōgo</i> 'tall', Bac <i>dukoto</i> ;
	b) <i>ɔ/mb-ɾ/</i> <i>l-N</i>	W <i>mbāra-na</i> , P <i>bəlam</i> , D <i>bula</i> , T <i>ōban</i> , <i>būrən</i> , B <i>babarən</i> , K <i>mbarambarana</i>	Ngz <i>mārəm</i> 'big', RB <i>mbay</i> 'big', RK <i>mban</i> 'big', Dr <i>bambəran</i> 'large'
'look for'	a)	B <i>mbud-</i> ;	H <i>bɪd-</i> , Bed <i>əbdu</i> 'ask', R(BD) <i>ɸwal</i> 'bitten', Sokoro <i>widē</i> , Jg <i>mād</i> 'ask', Dr <i>bide</i> 'ask';
	b)	MK <i>dōn</i> , T <i>jōm</i>	Bol <i>dons-</i> 'bitten', RF <i>daŋ</i> 'bitten um', Kof <i>dwo</i>
'loosen'		S <i>laləha</i> , J <i>lakwa</i> , M <i>lih-</i> , T <i>lokōn</i> (? adverb)	? H <i>rage</i> 'decrease'
'lost, get' ¹³⁶	ma-	JMK <i>ma-</i> , T <i>mā-</i> , P <i>muma</i> , S <i>mama</i> , B <i>man-</i>	? H <i>bata</i> , RB <i>ɸot</i> , RF <i>bubwat</i>
'lungs'	k-ɸ-	P <i>kuɸi</i> , D <i>akuɸu</i> , T <i>kɪɸan</i>	FK <i>guguɸi</i>
'maiden'	a) b-z-n-	K <i>bazəni</i> , W <i>baziniy-ai</i> , M <i>bazeni</i>	RD <i>muzay</i> ;
	b)	D <i>dābakwa</i> ;	Ngz <i>dabaku</i>
	c)	JB <i>ɣaya</i> , T <i>hayi</i>	
'make, do'	a) d/'-m-	W <i>əmə-</i> , S <i>dəmu</i> , M <i>dəm-</i> , K <i>in</i> , P <i>ndəɾ</i> , D <i>lu</i> ;	Bac <i>da</i> , KK 'y, 'i;
	b)	J <i>zā</i> ;	Ngz <i>dlamə</i> , Msg <i>zi</i> ;
	c)	B <i>gən-</i>	Dgl <i>gine</i>
'man, male(n.)'	(n) <i>ju/iF-</i>	W <i>jɪɸa-na</i> , MK <i>jɪɸana</i> , P <i>nju</i> , S <i>dən-tsɔki</i> , D <i>njəvu</i> , J <i>juhu</i> , B <i>jɪɸu</i> , T <i>juɸu</i> , <i>zāɸu</i>	Gis <i>žel</i> , FK <i>zal</i>
'mare' ¹³⁷		W <i>dakwai</i> , P <i>dakwa</i> , D <i>adla'akwa</i> , J <i>dākwa ta ama</i> , K <i>duwakə</i>	
'marry'		T <i>dəm-</i> , S <i>dā</i> , W <i>badiy-</i> , P <i>bar</i> , D <i>badi</i>	Bac <i>dəmsə</i> , Gwd <i>amere</i> , Tr <i>bəri</i> , Dgl <i>bady-</i> ¹³⁸

¹³⁵See also 'big'. ¹³⁶See 'forget'. ¹³⁷See 'horse', 'woman'. ¹³⁸? PC *d-b/m-ɾ; Bye d'ir, dobo.

'mat (H. <i>tabarma</i>)'		W <i>bada-na</i> , S <i>pātā</i> , D <i>abada</i>	? RS <i>akwat</i>
'meat, animal'	a) <i>tluw/y-</i>	W <i>tlū-na</i> , P <i>tluwi</i> , S <i>tluyi</i> , M <i>tlīwiya</i> , K <i>tlīwi</i> , T <i>tlun</i> ;	NM *s-(w-), Ngz <i>tluwai</i> , Bac <i>sə</i> 'animal', ? H <i>tsoka</i> ¹³⁹
	b)	J <i>kwariya</i> , B <i>kwāri</i>	Bac <i>hara</i> 'meat'
'medicine'	γ-n-k/h-	W <i>nhi-na</i> , P <i>hanaki</i> , S <i>γəŋki</i> , J <i>γunhu</i> , M <i>an̄hə</i> , B <i>γənhə</i> , K <i>γin̄hən</i> , T <i>γənən</i>	? Ngz <i>dun̄gun</i> , ? Bac <i>ngume</i>
'meet' see 'gather'			
'melon' ¹⁴⁰		D <i>acila</i> , B <i>cila</i>	
'middle'	a) (ts)-ts-F-	W <i>tsawi</i> (f.), P <i>tsitsuhu</i> , S <i>tsutsuhu</i> , D <i>atsava</i> , T <i>dēcūfa</i> , M <i>atsafu</i> , B <i>tivihī</i> , K <i>tsatsawha</i> ;	
	b)	J <i>tuγu</i>	Dgl <i>dugul</i>
'milk' see 'breast'			
'millet, bulrush millet'	a) <i>gy-l/r-</i>	P <i>gyela</i> , S <i>gyola</i> , D <i>aggyura</i> ;	Gwd <i>gyero</i> , ? RD <i>ngay</i> 'hirse';
	b) <i>m-rd-</i>	W <i>mard-ai</i> , J <i>marda</i> , MBK <i>mardə</i> , T <i>monde</i>	Ngz <i>mardu</i> 'millet', Dgl <i>marda</i> 'maize', ? FB <i>'yedin</i> , Gera <i>marda</i>
'monitor, land'	k-v-k-	W <i>kavak-ai</i> , M <i>kəvukə</i> , BK <i>kəvəkə</i> , T <i>kuḡəke</i> , J <i>kilkwa</i> , P <i>kokin-ciki</i> , S <i>kuku-tsəki</i> , D <i>akal̄sa</i>	
'monitor, water'		P <i>ngəzun</i> , S <i>ngəzəmi</i> , D <i>zāmu</i> , T <i>gujənən</i> , WK <i>guzən-</i> , M <i>guzun</i> , B <i>guzin</i>	Ngz <i>gəžan</i> , H <i>guza</i> , Tr <i>kwaza</i> ¹⁴¹
'monkey'	v-D-	P <i>vuda-ciki</i> , J <i>vidi</i> , K <i>viti-zəhə</i> , W <i>batuwa-na</i> , S <i>viyi</i> , mbəriya, D <i>amira</i>	NM *b-r/d-
'moon'	a) <i>ti/ər-</i>	MBK <i>tir</i> , S <i>təri</i> , J <i>tira</i> , WP <i>cira-</i> ;	NM *t-r-; ¹⁴²
	b)	T <i>tlangan</i> ;	Bac <i>liku-tə</i> ;
	c)	D <i>aḡada</i>	H <i>wata</i> ¹⁴³
'morning'	DZ-m-n/l	P <i>zəman</i> , D <i>ažimani</i> , J <i>suwal</i> , M <i>tsuwai</i> , B <i>tsuwi</i> , K <i>tsəwai</i> , T <i>asōsen</i> , W <i>tseyəwi</i>	? NM *d-m, Tr <i>dumari</i> , Bac <i>hawure</i> , H <i>sāḡe</i> ¹⁴⁴

¹³⁹C 432, Akk *lu* 'wild bull'; Ta *luhš*. ¹⁴⁰See 'pumpkin'. ¹⁴¹Kan *gujan*. ¹⁴²Bye *terig*.

¹⁴³Eg 'bd, C 5. ¹⁴⁴? Ar *ṣubḥ*.

'mortar'	-jil/n	P <i>jil</i> , S <i>jili</i> , D <i>juwa</i> , M <i>iji</i> , W <i>dajina</i>	Mg <i>indzir</i> , Klb <i>njir</i> , RB <i>yin</i> , ? NM *t-(r)m-
'mosquito'		W <i>vɪvɪ-na</i> , P <i>vɪtuwi</i> , D <i>avultu</i> , J <i>avɪvɪvɪ</i> , M <i>avevi</i> , B <i>vɪvɪ</i> , K <i>vivi</i> , T <i>vɛsɔn</i>	Ngz <i>vɔdaduwa</i> , Dgl <i>pada</i> , L <i>vɔlasɔ</i> , Dr <i>bɔxək</i>
'mother'	maX-	W <i>maɣ-ai</i> , P <i>ama-ti</i> , ? T <i>wāje</i> , M <i>māxɔ</i> , K <i>māhɔ</i> , S <i>mā</i>	Ngz <i>mai</i> , Gwd <i>ama</i> , Tr <i>manki</i> , Gis <i>maha</i>
'mould' see 'build'			
'mount, climb'	a) ɣəm- b) gi/ɔdu	W <i>ɣəm-</i> , JMB <i>ɣəma-</i> , S <i>ɣəmu</i> , P <i>hwun</i> , K <i>ɣimo</i> , T <i>wum</i> ; P <i>gɔdu</i> , D <i>gidu</i>	? Gwd <i>ɲyurɲwa</i> , Bac <i>ɲgure</i> , H <i>hau</i> ¹⁴⁵
'mountain'	d-y	W <i>dayi-na</i> , B <i>dɛyi</i> , K <i>dai</i> , P <i>yei</i> , J <i>daya</i> 'rock'	
'mouse' see 'rat'			
'mouth'	v-ɲG-	W <i>vɪnahɔ-na</i> , P <i>vɪngi</i> , S <i>vəngi</i> , B <i>vəŋhu</i> , K <i>vɪnahɔ</i> , T <i>vehe</i> , D <i>vəna</i> , J <i>vina</i> , M <i>vun</i>	H <i>bāki</i> , ¹⁴⁶ Dr <i>bok</i>
'mud'	a) T-b-k- b) ɖ-kw-b-	S <i>təpəhi</i> , D <i>atubaku</i> , B <i>ndabaku</i> , K <i>tabaku</i> , T <i>ndabakyan</i> W <i>takwab-ai</i> , J <i>takwaba</i> , M <i>dagwabu</i> , P <i>dlarbe</i>	NM *t-b-, ? Bac <i>səbwe</i> , Dr <i>lobok</i> ; ¹⁴⁷ FJ <i>dzugwabu</i> , Tr <i>daxba</i>
'nail' see 'fingernail'			
'name'	a) ngəN b) s-m	W <i>ngən-ai</i> , M <i>ngəm</i> , K <i>ngən</i> ; P <i>səm</i> , sən, D <i>šin</i> , J <i>sū</i> , B <i>šin</i> , T <i>səman</i>	NM *s-m- ¹⁴⁸
'nape'	dlūd-	W <i>dlud-ai</i> , M <i>lūdi</i> , B <i>lūdo</i> , K <i>lūdɔ</i> ¹⁴⁹	
'navel'	a) bɔ/ud- b)	W <i>bɔd-ai</i> , M <i>budən</i> , K <i>budɔ</i> , T <i>budɛ</i> ; P <i>sɪpiya</i> , ? S <i>tinci</i> , ? J <i>təna</i>	RF <i>buto</i> ; Bac <i>zumbude</i> , Zəlgwa <i>žimbel</i> , H <i>ɕɪbiya</i> , ? Ngz <i>zabau</i> ¹⁵⁰
'near'	ɲgəɾ	WPD <i>ngəɾ</i> , T <i>gəɾ</i>	
'neck'	wɪr	W <i>ɣ'ir-ai</i> , B (ɣ)w'iro, K (ɣ)wɪr, S <i>yiri</i> , J <i>yira</i> , M <i>wir</i> , T <i>were</i> , P <i>rei</i> , D <i>ɲgwadu</i> ¹⁵¹	NM *w-r-, Tr <i>ɲgura</i> ¹⁵²

¹⁴⁵Bye *hai* 'rise'. ¹⁴⁶Akk *pum-*. It has been suggested that -k- is a suffix for body parts.

B commonly has -hu. ¹⁴⁷? Ar *tib* 'filth'. ¹⁴⁸Bye *sīm*; Sem. *sm*. ¹⁴⁹? error in initial phoneme of MBK. ¹⁵⁰Ta *t-butu-t*. ¹⁵¹-du occurs as a nominal suffix in D. ¹⁵²Ugaritic *xlq*, Ar^c*unq*.

'new'	mar/lhw-	W marhu-na, P marhwan, S murūnəsi, D mal(n.), K marhu-na	Tr mewa, Bac weliyo 'unripe', Mg midagu 'fresh', Dgl marbinto
'night' see 'darkness'			
'Nile Perch'		W ndaže, M andaži, K daži	
'nose'	-t-n	W cin-na, PD atin, M atin, J iton, K tin, T tōnan, B tughū, S ɣirtōni	NM *t-n, H hant-, Goemai wantin, Tr xən, Gis hətaŋ ¹⁵³
NUMERALS			
'1'	wut-	WSJKT wuti, MB wutə, P waci	KK wodi, ¹⁵⁴ Bac hidə
'2'	a)	D rəbu, WKT ra'a;	Tr rap;
	b)	J šir, P cir, S bəcar, ¹⁵⁵ M tsir, B tsər	NM *s-r-, Ngz širin, Gis cew
'3'	k-(n)d-	MK kidi, B kidi, T kədə, P kədu, W kəji, S bukudi, J kəndi, D hinzu	NM *k-n-
'4'	ɣ-d-	MK ɣudu, BT ɣədə, J ɣidi, D ɣidi, W ɣədi, P ɣadu, S bɛɣədi	NM *ɣ-d- ¹⁵⁶
'5'	va'tl-	W vātli, P va'tlu, S bē'tli, D vā'tlu, J vātl, M vātlu, B vā'tla, K vātlu, T vā'tlə	Dgl bēdy, Mgz vād, Mb bi'ža
'6'	a)māha	WMBK māha, PJ maha, S mahani;	NM *m-k-, RD makon;
	b)	T šīcə	Ngz zədu, H šida
'7'	a)	W māsər, J mansir, M mātsir, B mantsər, K mātsir, P tsirkun, S bətsurkunu;	Dgl pēsira;
	b)	D bukur;	H bakwai;
	c)	T pūra	RF puruwon
'8'	a)ɣur/ɛɣudu	D ɣulɣudu, J ɣurɣud, M ɣurɣudu, P ɣaɣadiki, S buhudu;	Bac ɣwāɣwat, Dgl porpot ¹⁵⁷
	b)dlādla	W dladla, BT dlādla, K dlādlā	
'9'	kuts/c-	W kutsiya, K kutsiya, M kuciya, B kuca, S bukə'cuwi, D cāšə, J həša ¹⁵⁸	

¹⁵³Ar xurtum. Did the longer form mean 'nostril'? See 'hole'. ¹⁵⁴Sem whd. Cush *m-t.

¹⁵⁵S has b- prefix for 2-5, 7-9. ¹⁵⁶Bye ɣadig. ¹⁵⁷Reduplication 4+4. ¹⁵⁸Bye aššadig.

'10' ¹⁵⁹	a)	W <i>jib</i> , P <i>dābu</i> , S <i>dəbəkami</i> , D <i>zəgiḅ</i> , JK <i>dib</i> , M <i>dirbitin</i> , B <i>dṛḅ</i> ;	
	b)	T <i>wāma</i>	NM *g-m-
'20'		D <i>azugu</i>	
'100'		W <i>dalə</i> , K <i>dal</i>	H <i>dari</i> , Mdr <i>dərmak</i> , RB <i>hure-hure</i>
'oil'		W <i>šivə-na</i> , D <i>šinama</i> , M <i>šu</i> , K <i>šivə</i> ¹⁶⁰	Dgl <i>sewe</i>
'okra'	a) tag-w	W <i>tagəw-ai</i> , D <i>taguwa</i> , K <i>tagun</i> , T <i>tāgwan</i> ;	
	b)	S <i>hwēma</i> , <i>ɣwuyima</i>	? H <i>kubewa</i> , ? H <i>guro</i>
'old, grow old' ¹⁶¹	gy/ɣar-	W <i>gyara-na</i> , S <i>ɣarwa</i> , B <i>ɣaro</i> , J <i>k/hara</i> , D <i>ngar/l-</i> , T <i>gār/yēr-</i>	RD <i>hwēr</i> , Ngz <i>gar-</i> , Bac <i>ir-</i> , Mg <i>yal-</i>
'open, untie' ¹⁶²	a) gət-	MBK <i>gət-</i> , W <i>gəc-</i> ;	
	b) dl-(r)-	T <i>dlār</i> , B <i>dlir</i> , PD <i>dla</i>	
'partridge, stone (<i>Ptilopachus petrosus</i>)'		J <i>buzuwa</i> , B <i>'pəzə</i> , K <i>wa'surum</i> , T <i>'puze</i> , W <i>mahwiyo</i> , D <i>amahuyo</i>	? Dgl <i>watykilo</i>
'path' see 'road'			
'pay, ransom'	pə/un/l-	W <i>pəl</i> , BK <i>pəl-</i> , M <i>pən-</i> , S <i>punu</i> , J <i>bən-</i>	H <i>biya</i> ¹⁶³
'penis'	a) saN	W <i>sana-na</i> , <i>sāna</i> , PK <i>san</i> , M <i>šam</i> , S <i>cawī</i> ;	
	b)	J <i>largi</i> , B <i>lagwu</i> , D <i>ila</i>	
'person'	a) sə/um	W <i>sən-na</i> , MK <i>sum</i> , D <i>sū</i> , S <i>subuni</i> ¹⁶⁴ ;	
	b)	P <i>mbarin</i> , B <i>bargi</i> , J <i>wudir</i>	{ ? H <i>mutum</i> , L <i>mada</i> , Mg <i>mdu</i> , Mada <i>mbərɲa</i> , Bac <i>buāra</i> , Gis <i>mboro</i>
'pierce' ¹⁶⁵	bi/ul/y-	WM <i>biy-</i> , P <i>bi</i> , S <i>biyu</i> , K <i>biya</i> , J <i>bul-</i> , D <i>bū</i>	Bed <i>biyu</i> 'crack (pot etc.)'
'place(n.)' ¹⁶⁶		P <i>mbura</i> , S <i>bəri</i>	NM *w-ɾ-, H <i>wuri</i> , <i>guri</i> , Bac <i>vura-tə</i> 'town, district' ¹⁶⁷
'plant' see 'sow, transplant'			
'pluck, pick, pluck out, extract'	a) kul-	WBK <i>kul-</i> , S <i>kulu</i> ;	KK <i>kum</i> 'herausnehmen';
	b) f/pət-	P <i>pita</i> , D <i>fəta</i> , ? D <i>ɾəfəta</i>	Ngz <i>fətə</i> , <i>pətə</i> , Bac <i>mədə</i> , ? Mg <i>dəm</i>

¹⁵⁹Cf. 'arm, hand'. ¹⁶⁰Sem *šmn*.¹⁶¹Cf. 'big'. ¹⁶²Cf. 'untie'. ¹⁶³Kan *biya-*.¹⁶⁴Eth. Sem. *sbʔ*. ¹⁶⁵See 'stab'. ¹⁶⁶See 'town'. ¹⁶⁷Fula *wuro* 'village', Somali *bər* 'field' *berri* 'country'.

'porcupine'		W <i>cicibə-na</i> , P <i>jiji</i> , D <i>ajija</i> , J <i>azāzi</i> , M <i>žēžiki</i> , B <i>žžži</i> , K <i>ziziku</i> , T <i>cīcən</i>	
'pot'	a) <i>daŋG-</i>	W <i>dang-ai</i> , M <i>danga</i> , K <i>dangə</i> , J <i>daga</i> , B <i>dagə</i> , D <i>adakwa</i> , P <i>jinki</i> ;	
	b)	W 'cakwan-na 'small beer pot', NM * <i>t-k-N</i> ; K <i>jəngən</i> 'water pot', S <i>təkəri</i> 'big beer pot';	
	c)	M <i>duwal</i> , S <i>nduli</i> , K <i>ndul</i> , W <i>jigədlə-na</i> 'big beer pot'	NM * <i>ḍ-ɣ-l</i>
'pound'	a)	P <i>juwa</i> ; ¹⁶⁸	? NM * <i>s-(r)p-</i> ;
	b)	K <i>dlabəda</i> 'beat, pound', J <i>dlamb-</i> 'beat'	Ngz <i>sapdə</i>
'pour' ¹⁶⁹	v-(ɣ)-	B <i>vaɣ-</i> , <i>vow-</i> , K <i>vur</i> , T <i>vo-</i> , <i>va-</i>	Ngz <i>vəŋgə</i> , <i>pa</i> , ? Bac <i>pukə</i> , Mg <i>pwa</i> , <i>pu</i> 'pour in'
'pour in'		JMD <i>səka</i> , W 'ciɣ-	? Kof <i>dək</i>
'pour away'		WK 'tsarb-, ? T <i>kurb-</i> , P <i>dlur</i> 'pour in', D <i>zan-</i> , K <i>zal</i>	? NM * <i>z-(l)</i> , H <i>zuba</i> , Bol <i>jubb-</i> , <i>nzol-</i> ¹⁷⁰
'prevent'		K <i>daɸə</i> ¹⁷¹	
'pull, pull out'	'tsam-	WK 'tsamb-, P 'tsa, D <i>sama</i> , B <i>dlam-</i> , ? M <i>kam-</i>	Ngz <i>zəmtə</i> 'draw water', H <i>zāme</i> 'draw out'
'pumpkin'		W 'piyam-ai, MK <i>piyam</i> , PS 'pēma, D <i>abiya</i> , B <i>baraɟi</i> , J <i>gugwa</i>	Ngz <i>gābiyaw</i> , H <i>kabēwa</i> , ? Bac <i>halube</i> ¹⁷²
'push'	a) <i>t-g-d'</i>	W <i>təgəd-</i> , P <i>ciɗu</i> , D <i>tīda</i> , J <i>hada</i> , B <i>təɣ-</i> , K <i>dzəkətə</i> ;	H <i>tunkuda</i> , R(DB) <i>tuk</i> ;
	b)	S <i>likətlu</i>	Bac <i>lūkə</i>
'put down'	a) <i>-r-</i>	S <i>ara</i> , J <i>ər-</i> , M <i>ar-</i> , K <i>ir</i> , B <i>dar-</i> ;	
	b)	P <i>duba</i>	Ngz <i>dāwə</i> , Dgl <i>diye</i>
'put on (clothes), put' ¹⁷³	ž/z-	PSD <i>za</i> , M <i>za-</i> , W <i>ža</i> , B <i>zi</i> , <i>za</i> , K <i>zə</i> , J <i>zal</i> , T <i>sə/sə</i>	Bol <i>za</i> , Gwd <i>ša</i> , H <i>aza</i> 'p.down'
'python'	<i>mud-w/h-</i>	P <i>mudaha</i> , S <i>mudiwi</i> , M <i>mudu</i> , B <i>mudiwa</i> , K <i>mudə</i> , T <i>mudiwe</i>	Bac <i>mīdā-tə</i> , ? RF <i>mīrim</i> , H <i>mūdiwa</i>
'quiver'	<i>baŋgw-r-</i>	MBK <i>baŋgwar</i> , P <i>baŋgwara</i> , J <i>baŋgura</i> , T <i>bogare</i> ¹⁷⁴	? H <i>kwari</i> , Msg <i>gulaŋ</i> , FK <i>gwucil</i>

¹⁶⁸Semitic *ərḥ* 'winnow'. ¹⁶⁹Cf. 'throw'. ¹⁷⁰Ar *šabba*, Somali *šub*, Akk *šapak-*. ¹⁷¹? Ar *daḡa'a* 'repel, refute'. ¹⁷²PC **(l)ab-y-*. ¹⁷³See 'drink', 'enter'. ¹⁷⁴? *ba/o-* an old prefix or separate morpheme.

'rabbit' see 'hare'

'rain' see 'water' — often 'water of God'

'rainy season' ¹⁷⁵		J <i>dabuna</i> , T <i>lūban</i>	Ngz <i>dəman</i> , Tr <i>nomana</i> , L <i>dēman</i> , H <i>dāmana</i> ¹⁷⁶
'ram'	a)	P <i>gan</i> , D <i>agugam</i> ;	Ngz <i>gwamak</i> , <i>gōmak</i> , NM *(<i>ŋ</i>) <i>gam</i>
	b)	Ž <i>iba-na</i> , S <i>zəbəna</i> , K <i>žibən</i> ;	
	c)	M <i>mburgu</i> , T <i>bāren</i> ;	
	d)	J <i>tirjēdlu</i> , B <i>darγγgyadli</i>	
'rat, mouse' ¹⁷⁷	a) kus/š-N	P <i>kusan-ciki</i> , MK <i>kusam</i> , B <i>kušən</i> ;	NM *G- <i>š</i> -m;
	b) -gw-r/d-	W <i>gwara-na</i> , J <i>ragwada</i> , D <i>agwara</i> , J <i>agwenda</i> 'bandicoot', D <i>agandakwa</i> 'bandicoot'	Bac <i>voye-tə</i>
'red'	a) (m) <i>bīn-</i>	WK <i>mbāna</i> , M <i>bāni</i> , P <i>bi(han)</i> , S <i>mbi</i> , RF <i>bwel</i> , Ngz <i>bau</i> , Tr <i>vyaŋ</i> ; ¹⁷⁸ T <i>bunan(n.)</i> ;	
	b)	B <i>gwegweyo</i> ;	Somraiguamge;
	c)	S <i>tsutsu</i> , D <i>tsawa</i> , J <i>jīyu</i>	NM *d-z-, RB <i>juwi</i> , Kotoko <i>zey</i> , RD <i>šaran</i> , Nancere <i>jile</i>
'refuse'		T <i>kəl</i>	Ngz <i>kurə</i> , Bac <i>ko</i> , Dr <i>kuri</i> , H <i>kī(y)</i>
'remember'		P <i>dadil</i>	? Bac <i>dīyaŋa</i>
'request'	<i>raw-</i>	W <i>raw-</i> , DM <i>rawa-</i> , K <i>rō</i> , P <i>law</i> , S <i>rama</i>	Ngz <i>ramə</i> 'speak, say'
'rest'	<i>mas-</i>	W <i>mas-</i> , D <i>masa</i>	Tr <i>masi</i> , Gis <i>musok</i> ¹⁷⁹
'return(intr.)'	a)	W <i>pəy-</i> , P <i>bīla</i> , D <i>bəla</i> , D <i>piya</i> , K <i>pīy-</i> , T <i>vū-</i> ;	Gis <i>m-y/w</i> , Dr <i>mai</i> , Bac <i>mən-</i> , H <i>mai da(tr.)</i> , Dgl <i>wāliye</i>
	b) w-s/tl-	S <i>wusu</i> , J <i>wasā</i> , B <i>wutla</i>	
'rib'	a)	J <i>gaigai</i> , K <i>gilangam</i> ;	Bac <i>geŋgey</i> ¹⁸⁰
	b)	P <i>marni</i> , S <i>mirka</i> , D <i>aŋgara</i> , M <i>amarino</i> , B <i>marin</i> , T <i>garabun</i>	
'ridge up' ¹⁸¹	a) ru(γ)	S <i>ruγu</i> , <i>ruw</i> , T <i>ruhu</i> , B <i>rūr-</i> , M <i>rū</i> , P <i>ru</i> ;	Nga <i>rūyə</i> 'hoe up'
	b)	WD <i>yīt</i>	

¹⁷⁵See 'year'. ¹⁷⁶Cushitic D-M-N 'clouds'. ¹⁷⁷Cf. 'bandicoot'; Hebrew *axbar*. ¹⁷⁸PC *b-n/l.

¹⁷⁹? Akk *pāx*. Other NB langs overlap with 'breathe' and 'drink air'. ¹⁸⁰Chadic langs often had a collocation, perhaps 'bone of side', e.g. Tr *γətl kəbi*. ¹⁸¹Cf. 'hoe(vb.)'.

'right(hand)'		usually recognizable as an old collocation for 'hand of eating' or 'hand of mush', e.g. T <i>cé diuwe</i> , cf. Mg <i>tsi-səm</i>	
'ring' ¹⁸²	a) <i>kat-n</i>	W <i>katən-na</i> , D <i>akatin</i> , M <i>katam</i> , K <i>katan</i> ;	
	b)	J <i>amirtlu</i> , B <i>mur'tlu</i>	
'rip, tear'	a) <i>mb-ɾ</i>	W <i>mbar-</i> , D <i>mbara</i> , MK <i>mber-</i> ;	NM * <i>b-(ɾ)k-</i> , H <i>bark-</i> , Tr <i>byaxi</i> , RB <i>gwyak</i>
	b)	P <i>'dlar</i> , S <i>'tlara</i> , T <i>'tlār-</i>	
'ripen'	<i>na(h)-</i> ¹⁸³	WMK <i>na-</i> , PS <i>na</i> , D <i>həna</i> , J <i>nah-</i> , B <i>nā-</i> , T <i>nēhē-</i>	Bac <i>na</i> , Dgl <i>nē</i> , Gis <i>nah</i> , Ngz <i>nawa</i> , RD <i>nuh</i> , H <i>nūna</i> , <i>nāna</i> , <i>nīna</i>
'rise' see 'stand'			
'ritual' see 'fetish'			
'river, watering place'	a) <i>m-z/j-</i>	W <i>mazə-na</i> , M <i>māzən</i> , K <i>mazə</i> , PS <i>məji</i> ;	
	b)	S <i>šəɾəŋgi</i> 'stream', J <i>sirya</i> , T <i>zardən</i>	
'road, path, way'	<i>dl-ɾkw-</i>	W <i>jarhə-na</i> , P <i>dləɾki</i> , D <i>zugu</i> , J <i>dāru</i> , M <i>darhi</i> , B <i>dēri</i> , K <i>derahi</i>	NM * <i>t-(ɾ)b-</i> , FM <i>rugwan</i> , ? Higi <i>hurkwa</i> ¹⁸⁴
'roast' ¹⁸⁵	a) <i>š-F-</i>	P <i>sapu</i> , S <i>suhu</i> , D <i>cəfa</i> , J <i>sav-</i> , P <i>ɣapw-</i> ;	NM * <i>z-ɾ-</i> 'fry', ¹⁸⁶ H <i>soy-</i> , <i>toy-</i> , Bac <i>uwo</i> , Gis <i>sol</i> , <i>wur</i> , RD <i>faš</i> , MG <i>ptsa</i> , <i>bdzal</i> ¹⁸⁷
	b)	W <i>gədl-</i> , M <i>gəl(? gədl)</i> , K <i>gədlɪ</i>	H <i>gasa</i>
'robe'	<i>kab-</i>	W <i>kab-ai</i> , PS <i>kaba</i> , D <i>kābā</i> , MK <i>kabu</i> , T <i>kābe</i> , B <i>kun</i>	
'rock' see 'stone'			
'roof' ¹⁸⁸		W <i>'tuwai</i> , D <i>azaba</i> , J <i>dubā</i> , B <i>jabu</i> , K <i>tubahə kam</i>	RF <i>taw</i> 'thatch', ? H <i>jinka</i> < * <i>jimka</i> 'thatch', Bol <i>dika</i>
'room' see 'home'			
'root'	<i>tl-ɾ-</i>	P <i>tlari</i> , S <i>tlūra</i> , J <i>tlera</i> , M <i>tlerwa</i> , B <i>tlarnani</i>	NM * <i>s-ɾw-</i> , Dgl <i>tyāro</i> ¹⁸⁹

¹⁸²Cf. 'bracelet'; 'iron'. ¹⁸³PC **n-h-*; Tuareg *ən*. ¹⁸⁴Heb. *drk*; Ar *darb*, *ṭrq*; Bye *lagi*; ? PAA **dl-ɾgw-*. ¹⁸⁵PC **z-w-ɾ* 'roast, fry'; cf. 'fry'. ¹⁸⁶Examples given have *u* or *o* for the first vowel. ¹⁸⁷C 278, Akk *šā'u*; Galla, Somali *sol*. ¹⁸⁸Cf. 'home', 'cover'. ¹⁸⁹Sem **š-ɾ* ?, C 260 *š*.

'rope'	dz-r-k-	W žau-na, P zīki, S tsira, M žyau, B tsaraku, K žau, T cuhon	Bac salake, H zake 'thread', RK zar ¹⁹⁰
'rotten, be' see 'decay'			
'rubbish heap' ¹⁹¹	buž-(k)-	M vūši, K voši, P vājiki, WD budəs-, J kwansu, B cubu	Ngz bəžək, H jūji < jibji
'run'	a) r-y-	D riya, T rey, S yimu, J rima(n.), M mir-, B mur-;	Ngz rawa ¹⁹²
	b)	P dladlu, K dlidli	
'saliva'		W nəniki-na, P ani, S niki, D anešu, J vinakil, M ninəki, B nanəkə, K nənəki, T mīkən	Ngz nāwuk, Gwd anyanya, Dgl ulnya, Bac nauye ¹⁹³
'sand'		P hwika, S wthə-tsəki, M wūhi, K wuhə	? FK xwunda
'sauce'	ru/ɔF-	W rəvə-na, S rəvi, J ruḡu, M ruḡun, K rəvə, B rəbəsəi, D ambila'a	? Bol biye, ? Somrai berā, 'suppe, Gemüse'
'say, speak, tell'	a) wal-	W wal-, S wala(kə), K wal, M bəla, T mbul-, J wala(n.), T wāle(n.);	NM *p-r-, H furta, Tr bala, RK wolo, Bac boyo; Dr bale;
	b)	P munde, S mundu, D nda, M and-, B nd-, ? W da	? NM *t-()-, Dgl diye
'scar'	kaf-	W kafə-na, J akwaḡa, M kafə, B kafu, ? T 'tuḡəke	
'scorpion'	k-T-r(w)-	W kətirw-ai, P katura, J kədūra, M akə turu, B kataruwa, K kəturu, T kātəḡə, D ariduwa	Dgl erindile, ? Bac giduna-to, Msg hurdi
'scratch' ¹⁹⁴	tl--d-	W tlaw-, P tlawo, S tlaka, D dlira, J tlind-, BK tlakə, T tlēd-	H sūs-, sōs-, Ngz tlād-, Mg yidi, ? Bac ḡyedo 'carve', kyaḡa 'scratch'
'see'	a) naγ-, han-	W nah-, P han, D hyā, M nay-, B naγ-, K nahə;	NM *n-, H gani; ¹⁹⁵
	b)	S ḡgulu, J gul	NM *l-, Mg ulu, L ḡguli ^{195a}
'seed' ¹⁹⁶		JB vazar, ? < va-zar, PT vār-, WMK var-	Ngz zadak

¹⁹⁰Ta *iziker*. ¹⁹¹JMBK prefix 'head-of', cf. 'ashes'. ¹⁹²Sem *rwɔd*. ¹⁹³PC *n-y-K. ¹⁹⁴Cf. 'tattoo'; Bye *šikid*. ¹⁹⁵Ta *annay*; C 465. ^{195a}Ta 'lu'. ¹⁹⁶See 'thing', 'sow'; Sem. *zr*^c.

'sell'	mu/ə'ts-	S m̥a'tsu, M mu's-, B mu's-, W m̥ə'c-, J m̥əky-, T mā-	*m-s- 'buy'
'send'	a) ci/ən-	W cən-, P cini, B cin-, T cin-, J šən-, S tsənu, K kyal;	? Bac lyeno;
	b)	W njikw-	Sur dak ¹⁹⁷
'sew'	'tl-m(h)-	W tlaŋg-, S 'tlimu, J tlim-, B tlaŋh, P 'tlimba, T tlirt-, D ndər, M t̥ir, K tər	Gwd dimikyī, RS dumo', R(BD) t̥ōr, Bed dakm-, Bac diyo, MAT DMK ¹⁹⁸
'shadow, shade'	('a)ɾ-N	W arn-ai, P arna, J arena, M rem, B rēna, K arin, T arne, D marna (? < *ma-rna)	Gwd awriŋya, H inuwa, Ngz nən̄uwa, Bac se-reme ¹⁹⁹ Kof r̄in ²⁰⁰
'shallow'		W t̥ərakatl̄a-na, S dukurtl̄āni(n.), K tukušeyna, M ndibitli	? Bac taturak
'sharp'		W citau, P tau(n.), S 'tuwa(n.), M 'tatli, K tahi(n.), T cin(n.)	
'shave'	(-)tlim-	W tlimiy-, P atlim, J tlā(n.), M atlim, B tlim-, K tlim, T ciyām-	? RB soh, Bac sawo, Mg siy
'sheep'	t-m-kw-	W tumakw-ai, P tuma-caka, S tami, D atumagwa, J tum-akwa, ²⁰¹ M tumaku, B tumaku, K tumaku, T camake	NM *t-m-k-
'shoot'	'tu/əF-	WB 'təf-, M t̥əf-, T 'cəf-, P 'tləf̄a, S 'tləf̄u, J 'tluw-	? H j̄ēf- 'throw'
'shouting, shout'		W kaw-, J gwaral, M kwararə, B gyar, K kwar, T k̄ērun	H k̄ārā, kuw̄wa, kur̄ūruwa, Ngz kuruwa
'show'	(ŋ)gər-	PD ngəna, J ngər-, M gər-, BKT gər-	? Bud kəma
'sickle, (adze)'	a) (ŋ)gəlatə	W ngəlatə-na, M ngəlatə, B gəlatə, K ngalətə;	
	b) l-w/yd-	J l̄idu, B l̄ēdi, T l̄ēden, D l̄ūja	H lauŋe
'sickness'		S v̄əži, J vuza, M v̄uži	

¹⁹⁷Bye šanha. Note: The same root (in P and Bac at least) is used for 'work', as also Ngz wana and H aik-. Note that in Awngi əncayəst- 'work' is a passive of əncay- 'send'. Hebrew ml̄kh 'work (n.)' is built on the Semitic root l̄kh 'send'. ¹⁹⁸PC *'()-m-k-. ¹⁹⁹Cf. 'vomit'. ²⁰⁰PC *'-ɾ-w/m-; ? Bye 'anda. ²⁰¹-akwa fem. suffix, cf. e.g. 'in-law'.

'silent'	a)	WD <i>kəb</i> , P <i>cibu</i> , J <i>tabtab</i> , T <i>həbə</i> ;	
	b)	S <i>təki</i> , M <i>tikitiki</i> , K <i>tiki</i>	
'sing, song'	' <i>t-m</i>	WB <i>'təm-</i> , P <i>təma</i> , K <i>tum</i> , T <i>'tām-</i> , J <i>duma</i> (n.), M <i>atum</i>	Bac <i>dímse</i> , Gis <i>dimes</i> , ? RF <i>tas</i> 'sing and dance'
'sit'	' <i>ts-gw-</i>	W <i>tsəgə</i> , P <i>siki</i> , D <i>dəgwa</i> , J <i>šinkə</i> , MB <i>'tsəgə</i> , K <i>dəgwa</i> , T <i>cəgu</i>	Bac <i>nza</i> , Bol <i>dow</i> , Bed <i>dlawu</i> , H <i>zam-/zaw-</i> , H <i>tsuguna</i> 'squat' ²⁰²
'skin(v.)'	<i>nzən/l-</i>	WBK <i>nzəl-</i> , S <i>zənu(?)</i> , M <i>zəz-</i> , P <i>bəzu</i> , J <i>vaz-</i>	? Bac <i>šínə</i> , ? Mg <i>nənu</i>
'skin(n.)'	a)	PK <i>tala</i> , T <i>tal</i> ;	
	b)	S <i>bakala</i>	? Ngz <i>həvak</i> , R(DSK) <i>ǵ-kut</i> , MAT <i>ʁ-K</i>
'slaughter' see 'cut'			
'slave'	a) <i>galu-</i>	W <i>galū-zəhə-na</i> , D <i>gālu</i> , MK <i>galū-</i> <i>zəhə</i> , T <i>gālun</i> , P <i>hwalin-ciki</i> ;	
	b) <i>mar-</i>	S <i>mar-tsəki</i> , J <i>marju</i> , B <i>mar</i>	Dgl <i>berne</i> , Gwd <i>burwa</i> , Rd <i>mōr</i> , Bud <i>mā</i> , ? Tr <i>mava</i> ²⁰³
'sleep(v.)' ²⁰⁴	'-s/š-n-	W <i>əsāna</i> (n.), WBM <i>sən-</i> , P <i>ašin</i> , S <i>sunsuni</i> , D <i>yisa</i> , J <i>isaŋ</i> (n.), B <i>dišan</i> (n.), K <i>sənasan</i> , T <i>šanən</i> (n.)	NM *(w-)s-n-
'smell bad, stink'		W <i>camə-</i> , P <i>səmuu</i> , M <i>təma</i> , B <i>cam-</i> , K <i>təm-</i> , T <i>'cāwa</i> , ? D <i>lāzəm</i> , S <i>ta'a</i> , L <i>dəvi</i> , Dgl <i>dē</i> ²⁰⁵ J <i>da'a</i> , B <i>daha</i>	RB <i>du</i> , H <i>doyi</i> , Bol <i>daw</i> , L <i>dəvi</i> , Dgl <i>dē</i> ²⁰⁵
'smoke'	<i>ky-n-</i>	W <i>kyanū-na</i> , MK <i>kyanu</i> , B <i>kānu</i> , T <i>kēnu</i> , S <i>ina</i> , D <i>anasu</i> , J <i>eni</i>	Ang <i>gyil</i> , Kof <i>dyel</i> , Tr <i>gən</i> ²⁰⁶
'snatch'	<i>tsəm-</i>	W <i>tsəm-</i> , K <i>tsəm</i> , D <i>səma</i>	Ngz <i>zāmtə</i>
'snore'	<i>dl-n/</i> <i>rgw-n/r</i>	W <i>tləxmə</i> , P <i>dlurguna</i> , SJ <i>rgwarti</i> , D <i>tləxma</i> , B <i>rgurtə</i> , K <i>ngəxən</i> , T <i>ngwar-</i>	RD <i>hangor</i> , Ngz <i>dlankor</i> ²⁰⁷
'soft'	<i>ləbuləbu</i>	W <i>ləbələbə-na</i> , PB <i>ləbuləbu</i> , S <i>lillibənni</i> , D <i>ləbuləbu</i> , M <i>ləbuləbu</i> , K <i>lubulubuna</i> , T <i>ləbələbən</i>	Ngz <i>ləmis</i> , H <i>lamši</i> , <i>lubus</i> , Tr <i>lumbud-lumbud</i> ²⁰⁸

²⁰²Bye *s'(a)*; Akk *ašābu*. ²⁰³PC *m/b-gw-; for J form see 'man'. ²⁰⁴Cf. 'dream'; Heb *yšn*.

²⁰⁵Bye *dimi*; PC *d-()- . ²⁰⁶Bye *kwarar*. ²⁰⁷Bye *kantur*; PC *()-nKw-*h*. ²⁰⁸Ar *mls*; PAA *l-m-s.

'son, boy' ²⁰⁹	a)	W <i>jín-na</i> , BK <i>jín</i> , W <i>diyu-na</i> , B <i>lā</i> , K <i>diyo</i> , P <i>dla</i> , ? T <i>hīnən</i> ;	Gis <i>zurj</i> , Bac <i>nze</i> , <i>ndu-tə</i> 'daughter', H <i>dā</i> , Gwd <i>ya</i> , Sur <i>lā</i> pl. <i>jεp</i> , Ang <i>yem</i> pl. <i>jeb-mwa</i> ;
	b)	S <i>be'si</i>	Tr <i>bəsonjka</i> 'boys', Mg <i>bzəh</i>
'sorcery' ²¹⁰	<i>ləm-</i>	following for 'sorcerer': W <i>bələmai</i> , P <i>aba lima</i> , S <i>marā-tsəki</i> , D <i>mālim</i> , M <i>marin-zəhə</i> , K <i>diya lum</i> , T <i>mārən-tsahan</i>	Ngz <i>māləm</i> 'sorcerer', Dgl <i>mələm</i> 'sorcery'
'soul' ²¹¹	a)	W <i>zugwai</i> , D <i>jikina</i> , K <i>jikən</i> ;	
	b)	J <i>arənakwa</i> , M <i>arəwan</i>	? H <i>kurwa</i> , Jg <i>lāwo</i> 'spirit, ghost'
'sour'	' <i>ts-m</i> ' <i>ts-m</i>	W 'can'can, D 'san'sam, M 'sən'sani, P 'tsəmumu, S 'tsāwāni, K 'sam'sam-na, J <i>kyamakyama</i> , B 'tsāmin, T 'tsōmama	Ngz <i>zom</i> , Gwd <i>camí</i> , H <i>tsāmi</i> , L <i>semsem</i> ²¹²
'sow'	a) <i>t-G-Z</i>	W <i>təyəzə</i> , S <i>tukusu</i> , M <i>tawazə</i> , K <i>təzə</i> ;	
	b)	J <i>lakw-</i> , T <i>dli-</i>	NM * <i>s-k-</i> , Bac <i>luga</i> , RD <i>leh</i> ; ²¹³
	c)	D <i>zāmu</i> , P <i>zāma</i>	Ngz <i>zəgəm</i> , H <i>sunğumi</i> 'sowing hoe', Bud <i>šāmo</i> ^{213a}
'spear'	a)	D <i>andiba</i> , P <i>ndiba</i> , M <i>atlakwam</i>	
'spend time' see 'wait, become'			
'spider'	a) <i>-ngw-n-</i>	W <i>nginangina-na</i> , P <i>ngwunangwuna</i> , D <i>anguna</i> , M <i>anginani</i> , K <i>nguna</i> , J <i>amuma</i> ;	
	b)	B <i>warawaratə</i>	RK <i>bara</i> , Bac <i>kurakuratə</i> , Sok <i>gírger</i> , Ngz <i>ararāwa</i>
'spit'	Pəš	P <i>pəsu</i> , D <i>pəja</i> , J <i>pəš-</i> , M <i>bətsə-</i> , B <i>vuts-</i> , K <i>pətsə</i> , T <i>pəc-</i> , ? W 'tsar, ? S <i>kutlu</i>	H <i>fəs-</i> 'spurt water from mouth', Dgl <i>pitye</i> , Bed <i>pazwu</i> , Ga 'anda <i>pishə</i> , Gera <i>fəsi</i>
'squat' see 'kneel'			
'stab, pierce'		W <i>nzakw-</i> , <i>dləkəf-</i> , B <i>zukum-</i> , K <i>dləkəf-</i> , T <i>zugum-</i>	Ngz <i>zuktə</i> , Gis <i>dləge</i> , H <i>sūk-</i> , <i>sōk-</i>
'stalk'		W <i>gahū-na</i> , MK <i>gahu</i> , J <i>ayahi</i> , B <i>gō</i> , D <i>aka-dū</i> , P <i>hyaka</i> , T <i>āšukan</i>	? Bac <i>gudē</i> , ? Msg <i>godl-ay</i>

²⁰⁹See 'girl'. ²¹⁰Cf. 'eat'. ²¹¹See 'wind', 'shadow', Ennemor *arwa*. ²¹²Bye *hami*. ²¹³PC **dē-k-*. ^{213a}Perhaps related to above root.

'stand, stop, wait'	'tsɔr-	W 'tsɔrw-, MBKT 'sɔr-, P 'tsura, S 'tsuru, D 'sala, M kir-	H tsaya, Bol dyor, RF dar, RS zyah, RD sɔr, Ga'anda hlar, Dr yiri, Udlam tsats- ²¹⁴
'stand up, rise' ²¹⁵	tl-	W tlau, PS tlu, D tla, JMBK tla-, T tlə-	NM *t-s-/s-t-, Ngz tla, R(FBS) luK, Gis tlk-d, Mg hya, Dgl utye
'star'	š-š-w-	W šušuw-ai, P šašuwā, S susuwī, J šašuwā, K šušu, M ašuwāšū, B šašuwī, T dilā šišuwī	Ngz gəžaw, Mg šašilga, RK sisixi
'steal' see 'theft'			
'stick(n.)'	zakh-l-	P dangwadi, S zakala, J zanguma, K žabal, T žābulan, ? M kwambal, ? B gwadə	NM *z-l-, Dgl zungul, RD zoŋ, Bura zwāl, Ngz zawa
'stomach, external'	b-K-l	W bugəy-na, S bukuli, B kubulo, K bigi	
'stone'	a) z-k-y-	W zəkəy-ai, P zəgiya, M zəki, B zəki, K zəki, S kayi;	NM *(N)d-G-, Mg ntska, Tr ndogu, ? H tsakuwa 'gravel', Gis dugur; Tr cinji;
	b)	D baya, ? J daya, ? T tfe	NM *p-r-
'stork, Abdim's'		D acināro, J sakwadiya, MB cangu, K šāgu, T šangwe	H šāmuwa
'stork, marabout'		W nzara, D jūrū, K juwir	Ang cimir
'storm' see 'cloud'			
'story'	j-nj-n	P njanjīn, S cāci, J janjina, T cācine, W dədəkai, D adidika	Ngz zənzən, KK dindēnō
'stranger'	a) m-l/rky-	W məlki-zəhə-na, D murkyu;	Ngz magəraf, ? Gwd bakoye, Msg markoi, Gis mulah ²¹⁶
	b)	P sambur-ciki, P sumbur-tsəki	
'suck'	nj-md-	W kund-, sənd-, P njandu, S səndu, D njəma'a, M šinya-, K kumde, T zumd-	Gwd cəce, Dgl tyōde, Kof dyas-, Bac šawa, Mg mcimcidu, Bed cumcumtu
'sun'	a)	W fai, P fei, D fata, K afai, T sarafe;	NM *f-t-
	b)	JMB muk/kw-	

²¹⁴Heb ʿṣr 'stop(tr.)'; PC *'ts-r-. ²¹⁵'lift' seems to be a form derived from this. -t- occurs as second consonant in NB, but it is a suffix (see 'die', 'go out'). ²¹⁶Bye girba; Ar yrb; m- a PAA prefix.

'swallow'	s-k-n-	W <i>sukun-</i> , P <i>sikən</i> , S <i>səkənu</i> , D <i>ša'a</i> , J <i>jəkən-</i> , M <i>səkən-</i> , K <i>sukun</i> , T <i>səkən</i>	? Gwd <i>šereka</i> , ? Tr <i>dəka</i> , H <i>šāke</i> 'choke'
'swear'	ts-m-	WK <i>tsəm-</i> , M <i>tsəm-</i> , T <i>cān-</i> , J <i>šəm-</i> , M <i>təsīwi</i> , K <i>cama</i> , T <i>səla</i>	Ngz <i>dəma</i> 'oath', Sokoro <i>sāmesāme</i>
'sweat'		W <i>zūkuma-na</i> , K <i>zukum</i> , D <i>zəkuma</i> , P <i>tsina</i> , S <i>tsuni</i> , M <i>asūwayu</i> , B <i>šiwā</i>	H <i>zuḡa</i> , Ngz <i>dāḡu</i> , FB <i>mətsuḡən</i> , FM <i>xaciḡa</i> ²¹⁷
'sweep'	a)	P <i>pei</i> , W <i>pəpə</i> ;	Bac <i>ḡiyə</i> ;
	b)	S <i>tsəḡu</i> , D <i>səḡa</i> , K <i>cəḡə</i>	{ Bed <i>əsḡu</i> , H <i>šāḡ</i> - 'stroke';
	c)	J <i>hur-</i> , M <i>kəl-</i> , B <i>kəl-</i>	? Ngz <i>kāsə</i>
'swell' ²¹⁸	a)	W <i>pəc-</i> , P <i>pəcu</i> , D <i>ḡəcu</i> ;	? Mg <i>ḡi</i>
	b)	P <i>wasu</i> , M <i>was-</i> , T <i>wuš-</i> ;	
	c)	S <i>'səmu</i> , BK <i>'səm-</i>	
'swim' ²¹⁹	a)	W <i>nəs-</i> , K <i>nəsa-</i> , T <i>ni'sən(n.)</i> ;	? H <i>nutse</i> 'sink';
	b)	M <i>buna</i> , D <i>mbuzu</i> , J <i>bitli</i>	R(SDB) <i>b-m</i>
'sword' ²²⁰		W <i>kasḡāla(m.)</i> , J <i>kasəḡgali</i> , T <i>kasəḡgalen</i> , K <i>kamsagal</i>	Gwd <i>kašəḡari</i> , H <i>kansakali</i>
'tail'	'c-w-	W <i>'calai</i> , P <i>suwa</i> , S <i>suwi</i> , D <i>'cuwā</i> , J <i>sawa</i> , M <i>sau</i> , B <i>sawa</i> , <i>sawaza</i> , K <i>sō</i> , T <i>šāwe</i>	Bud <i>nḡi</i> , L <i>zue</i> , Mg <i>šu</i> , H <i>wutsiya</i> , Gwd <i>wušiya</i> , ? RF <i>hulem</i>
'take off' ²²¹	a) (m) b-l	W <i>mbəl-</i> , P <i>mbei</i> , S <i>mbala</i> , M <i>mbal-</i> , B <i>bī</i> , K <i>beya</i> ;	
	b)	D <i>kwaba</i> , J <i>kwab-</i>	H <i>kwab-</i> 'unhaft'
'tall' see 'long'			
'tattoo' ²²²	tlaw-	P <i>tlawa</i> , M <i>atlau</i> , B <i>tlawə</i> , K <i>tlau</i> , J <i>lakwa</i>	H <i>šāššauta</i>
'teach' see 'learn'			
'tear' see 'rip'			
'tear (lacrima)'	žə'p	W <i>zə'pī-na</i> , J <i>ažəmbi</i> , M <i>ažəpi</i> , B <i>zəbi</i> , K <i>zipi</i> , T <i>jībən</i> , P <i>mbucin</i> , D <i>aḡin</i>	Bed <i>suwar</i> , H <i>hawanya</i> , Bac <i>tuwo</i> 'weep', Bud <i>himālo</i> ²²³

²¹⁷Bye *duḡ*. ²¹⁸Cf. 'smell bad'. ²¹⁹Cf. 'wash'; Ar. *ʿawam*. ²²⁰Amo (Benue-Congo) *ka-sangali*; Kan *kašagar*, cf. 'knife'. ²²¹See 'go out'. ²²²Cf. 'scratch'. ²²³Sem *dm*^c; Bye *mile*.

'tell' see 'say'

'termite'	a) d-ḡ-	S dāḡḡḡḡmi, B dāḡḡ, MK dupu, J duba;	NM *d-()ḡ-;
	b)	W gwatlala-na, P gaṣeka, D ḡḡāsu	RB ḡḡal, H gaṣa, ? Ngz kāsḡḡ 'termite hill', Mg kātla ²²⁴
'testicle'	darak-	W darak-ai, D ādara, K arakḡ, S turukwa, P raṅga, B lagwu	
'thatch' see 'roof'			
'theft'		W kir-ai, PJ kḡra, S kḡri, D kula, M akir, BK kir, T kḡrey	Ngz kḡḡḡ, Bac hḡḡḡ, ? RB sir ²²⁵
'thigh'	T-F-k-	S tūka, D duvu-du, J dūhu, B tīvihu, T tḡḡḡkan, WK t-k-ḡ-, ? P ndīkḡsa, ? M mbaḡḡ	Karbo tumakkon, Dgl tumke ²²⁶
'thin, become'	a)	W dlambu, D dlamba;	Ang lōm 'thin', H ām-
	b)	M ravad-, K rḡvḡḡ-, T rūvāḡ-;	
	c)	P gḡra, J gḡḡ-, B kḡḡ-	
'thing'	'-v-y	W wuyā-na, P avu, D vu, J wuvu, M wāham, B vū, T vey	Ngz baya, H abu, aba, Hz awi
'thirst' ²²⁷	kḡḡḡ-	W kḡḡḡ-ai, PJ kḡḡḡa, SK kḡḡḡi, T kḡḡḡḡ-zāwe, M kḡḡḡḡ	? Ngz gḡḡi, KK kuzḡm 'hunger', L ḡḡzḡm 'hunger'
'thorn' ²²⁸	v-k-y-	W vḡkḡy-ai, S vḡkiyi, M aveki, B vyaki, K vaki, P vagwe, J avagiya, D avikiya, T bāgiye	Gwd akanḡya, H kaya, Ang, Sur ḡ-ḡ, Bac hole, RD magi(h), RS gigyah
'throw' ²²⁹		W vaḡ-, K vḡ, T vuru	Ngz vḡḡḡ
'tie'	d-k-n-	W dīkḡn-, P dḡkḡn, S dḡkḡnu, BK dḡkḡn-, J dagun-, M dḡḡḡn-, T kun-, D in	H daure, <*dḡḡḡ-, ? NM *ḡ-n-, ? RD āngal ²³⁰
'tired, be; tiredness'	a)	WK nuw-, D uwa, S ava;	? Ngz dūwatlḡ, ? Bac ḡwa;
	b)	P njam-, B lam-, T žum-	? NM *(ḡ)ḡ-m-
'toad, frog'	t-kw-d- ²³¹	J tukudaya, M atukudī, B tḡkwidī, K tukudḡn, ? P njinjakwa, ? D akurzudu, W gudugudu-na	RS ḡḡa'a, RD kodok, H kwāḡḡ, Bed gurdid-in, L guduge, Dr gḡwa

²²⁴PC *ḡḡ-tl-. ²²⁵Bye ḡwihar. ²²⁶Bye dambe. ²²⁷See 'water'. ²²⁸Cf. 'seed', see 'thing'.²²⁹ Cf. 'pour'. ²³⁰Ta qqn; for NB d- see 'make'. ²³¹? t- a prefix; PC *Kw-(d)-.

'tomato, bitter (<i>Solanum</i> sp.)'		W <i>gica'</i> -ai, P <i>kuḍa</i> , S <i>kəti</i> , D <i>agəca'</i> a, J <i>akundi</i> , M <i>kunti</i> , B <i>kinti</i> , K <i>kintə</i> , T <i>kuti</i>	Ngz <i>kwītāwa</i> , H <i>gauta</i> , Kof <i>kul</i>
'tongue'	s/šə/iŋk-	W <i>šingə-na</i> , P <i>šingki</i> , S <i>sənaki</i> , D <i>šindu</i> , J <i>sənəkəlaŋ</i> , M <i>šinaki</i> , B <i>šinako</i> , K <i>šinakə</i> , T <i>sinkan</i>	Banana <i>sin-da</i> ²³²
'tooth'	()-γ-n	W <i>'təyn-ai</i> , P <i>ndini</i> , S <i>'tsinna</i> , D <i>šiya</i> , J <i>dīna</i> , M <i>tiyim</i> , B <i>'tino</i> , K <i>tin</i> , T <i>dīne</i>	NM <i>*s-n</i> , H <i>tsīni</i> 'sharp point of any sort' ²³³
'tortoise'		W <i>gurdai</i> , D <i>agurda</i> , W <i>gadəgāra</i>	Sur, Ang <i>kur</i> , KK <i>gadagori</i> , H <i>kunkuru</i> ²³⁴
'touch'	a)	JMB <i>təkən-</i> ;	
	b)	W <i>daw-</i> , P <i>naw</i> , S <i>ndawi</i> , D <i>nama</i> , K <i>dawh-</i> , T <i>tarfu</i>	Sur <i>tuwās</i> , H <i>taba</i>
'town, place, human environment'	y-(l)	J <i>yil</i> , B <i>yī</i> , T <i>yī</i> , K <i>iyu</i> , ? W <i>wiyy-ai</i> , J <i>yūwa</i> , MK <i>gwahi</i>	Ang <i>yil</i> 'earth', Bed <i>'eli</i> 'earth', H <i>gaki</i> < <i>*gali</i> , Tmk <i>kəle</i> , Tr <i>yay</i> , Ngz <i>gagai</i> ²³⁵
'transplant'	a)p-y-	W <i>pya-</i> , D <i>pyā</i> , K <i>peya</i> , P <i>pi</i> ;	
	b)	J <i>ndəbən-</i> , M <i>dəbən-</i> , D <i>jəfə-</i>	? Bac <i>nguḃo</i>
TREE ²³⁶			
'wood' ²³⁷	a)d-N(-)	W <i>dən-ai</i> , J <i>dina</i> , M <i>dum</i> , B <i>din</i> , K <i>dīŋ</i> , T <i>dīni</i> ;	Ang, Sur <i>t-ŋ</i> , Ngz <i>dəm</i>
	b)	PD <i>bama</i> , S <i>vama</i>	
'Acacia albida'		W <i>səs-ai</i> , K <i>səsi</i> , J <i>atasa</i> , T <i>tācuke</i> , M <i>tasu</i>	
'Ac. arabica'	a)	W <i>tatarəšə-na</i> , S <i>katəhasi</i> , D <i>atutaršā</i> ;	
	b)	M <i>baraku</i> , B <i>barwai</i> , K <i>baru</i> , J <i>agabaru</i>	Ngz <i>guvaru</i> , Bed <i>əgvarakon</i> , H <i>gabaruwa</i>
'Ac. sieberinana'		P <i>laliya</i> , D <i>alaliya</i> , K <i>lālī</i>	
'baobab'	a)kukw-	D <i>kukwadu</i> , J <i>kukwa</i> , T <i>kūke</i> ;	H <i>kūka</i> , Ngz <i>kuku</i> , ? F MAGWUR- ²³⁸
	b)dəmbər	W <i>dəmbər-na</i> , MB <i>dəmbər</i> , K <i>dəmbur</i>	
'Balanites ægyptiaca'		D <i>agdənasu</i> , WK <i>gəns-</i> , M <i>agam</i> , P <i>gagali</i> , J <i>tərkwa</i> , B <i>hūdahə</i> , T <i>cəkunkuni</i>	Ngz <i>akda</i> , H <i>aduwa</i> , Dgl <i>badyur</i>

²³²See Lukas (1970) *Gisiga* p.22*. ²³³C 262 š-n. ²³⁴Hoffmann (1970) p. 15. ²³⁵Akk *āl-* 'earth';
cf. 'place'. ²³⁶Use - wrongly - of H. 'itace instead of *bishiya* on several occasions tended to
elicit 'wood' rather than 'tree'. ²³⁷Cf. 'firewood'. ²³⁸Kan *kuwa*.

' <i>Calotropis procera</i> '		W <i>badlagw-ai</i> , S <i>dlabēki</i> , D <i>baduwa</i> , Ngz <i>pārākau</i> J <i>badlala</i> , M <i>palgwai</i> , B <i>fatlugwe</i> , K <i>patlagwai</i> , T <i>'pāwe</i>	
' <i>figus</i> ' (H. <i>baure</i>)		S <i>tarani</i> , D <i>tilin</i> , B <i>tirin</i> , K <i>turum</i> , T <i>cōrin</i>	
' <i>figus</i> ' (H. <i>cediya</i>)		W <i>žizid-ai</i>	
' <i>figus</i> ' (H. <i>durumi</i>)	a)	W <i>dələn-na</i> , K <i>dələm</i> , D <i>dəhəmi</i> ; ²³⁹	
	b)	J <i>gulum</i> , B <i>gələm</i>	
' <i>Zizyphus jujuba</i> '		S <i>waiwaya</i> , D <i>apaya</i> , M <i>awai</i> , B <i>viye</i> , Ngz <i>kwayu</i> , Bol <i>awe</i> , Mg <i>awiya</i> K <i>wayaku</i> , T <i>kōye</i>	
'locust-bean'		W <i>wutsukw-ai</i> , P <i>hyica</i> , S <i>wucuwi</i> , Msg <i>mutukui</i> 'yellow' ^{239a} D <i>tukuda</i> , J <i>yijukwa</i> , M <i>wībər</i> , B <i>yībi</i> , K <i>wutsuku</i> , T <i>kukube</i>	
'mahogany'	<i>kwam</i>	P <i>kwama</i> , MBK <i>kwam</i> , W <i>kwam-ai</i> , Ngz <i>agumak</i> S <i>kun-tsəki</i> , D <i>kāmu</i> , J <i>agwama</i>	
'shea-butter'		S <i>gurdliyi</i> , D <i>anzuwada</i> , J <i>aguza</i> , Ngz <i>kutasu</i> , H <i>kadai</i> M <i>akur</i> , B <i>kyər</i> , K <i>kunnaku</i> , T <i>kurve</i> , P <i>njala</i>	
'silk-cotton (<i>Eriodendron or.</i>)'		P <i>zəki</i> , S <i>bazōki</i> , J <i>jigatu</i> , B <i>jigajigatu</i> , K <i>dzukə</i>	
'silk-cotton (<i>Bombax buon.</i>)'		W <i>zərgw-ai</i> , P <i>zurungga</i> , S <i>zərgi</i> , D <i>atungu</i> , J <i>zəngwa</i> , M <i>zurgu</i> , K <i>dzərgu</i> , T <i>tsərgwe</i>	
'tamarind'	a) m-ts-N	{ K <i>mətsən</i> , W <i>mətsən-ai</i> , P <i>mbəcina</i> , Ngz <i>məšənu</i> , ? Bed <i>məsāk-on</i> M <i>mu'sum</i> , B <i>mu'suŋ</i> , J <i>bišina</i> ;	
	b)	D <i>ta'am</i> , T <i>njeyen</i>	
'tremble'	(dl-)dl-r	W <i>dlədlər</i> , M <i>dlədlər</i> , K <i>dlər</i> , Ngz <i>matlkatlka(n.)</i> , Gis <i>jijik</i> , P <i>dəddəro</i> , S <i>tətdəwa(n.)</i> , D <i>rəda</i> RF <i>titas</i> , H <i>girgiza</i> (n.), J <i>sara(n.)</i> , T <i>matare(n.)</i>	
'truth'		W <i>'cīza</i> , P <i>šinti</i>	
'turn' ²⁴⁰	a) v/wus/r-	WK <i>wur</i> -, B <i>wus</i> -, M <i>vur</i> -, T <i>vuwa</i> ; Bac <i>vuruwe</i> , Ngz <i>məstə</i> ;	
	b)	S <i>silu</i> , D <i>səla</i> ;	
	c)	P <i>jikhəl</i> , J <i>jingal</i> , <i>cikal</i> , M <i>ziga</i> ? Mg <i>ša</i>	

²³⁹? loan from H. ^{239a}H *dorowa* means both 'locust-bean' and 'yellow'. ²⁴⁰Cf. 'pour'; see 'change into'.

'turtle'		W <i>ɣyanɣyan-ai</i> , K <i>ɣyanaɣyan</i> , P <i>ɣenɣyenna</i>	H <i>kiɣɣiya</i>
'twin'	a) <i>ngw-y-</i>	W <i>ngiwā-na</i> , P <i>ngiyan</i> , M <i>angwiyeño</i> , K <i>ngiwan</i> ;	? H <i>tagwāye</i> , Bud <i>kangoēi</i>
	b)	S <i>zāka(kəna)</i> , D <i>azəbabu</i> , B <i>zənwi</i>	
'ugly, bad'	(m) <i>bas-</i>	P <i>basan</i> , S <i>bəsəmi</i> , D <i>bāsā</i> , MK <i>mbasakə</i> , B <i>mbasəsə</i> , T <i>bašān</i>	Ang <i>beus, bis</i> , Ngz <i>gabšu</i> , Rf <i>mbušu</i> 'schlecht', RD <i>ɣwaš</i> , Kof <i>bis</i> 'bad', Tr <i>mbarba</i> 'bad' ²⁴¹
'ulcer'	a)	P <i>mī</i> , M <i>mēmi</i> , B <i>mæmi</i> , K <i>mēmi</i> ;	H <i>māki</i> , Mg <i>məya</i> , Bac <i>bōke</i> ;
	b)	W <i>rikəi-na</i> , D <i>aligim</i> , T <i>rīkən</i> ;	Ngz <i>dərənku</i> ;
	c)	S <i>bambi</i>	? H <i>gyambo</i>
'unload' see 'descend'			
'unripe, wet' ²⁴²		D <i>yada(n.)</i> , M <i>ndiwanni</i> , WK <i>ndindīna</i> , T <i>dainadaina</i> , D <i>didi(n.)</i>	Gwd <i>nyara</i> , L <i>ndan(vb.)</i> , H <i>danye</i>
'untie' ²⁴³		W <i>bəc-</i> , P <i>mbuta</i> , <i>mbuda</i> , S <i>budlu</i> , J <i>mbuz-</i> , M <i>būt-</i> , K <i>bīt-</i> , T <i>but-</i>	Ngz <i>ɣətkə</i> , H <i>būde</i> 'open', Bac <i>para</i> ²⁴⁴
'urine'	<i>tsi/əP-n-</i>	K <i>tsipir</i> , B <i>tsipwər</i> , W <i>tsəpr-ai</i> , P <i>tsipura</i> , S 'cipəri, M <i>tsəpur</i> , T <i>sābirī</i> , J <i>kibəra</i> , D <i>atsəbəla</i>	RB <i>šā</i> , RS <i>zoḥ</i> , Ngz <i>vədau</i> , Dgl <i>pidy-</i> , H <i>ɣitsāri</i> , Tr <i>wuzingīn</i> ²⁴⁵
'vagina'		S <i>gəsi</i> , M <i>kuti</i> , W <i>dakadi-na</i>	H <i>gato</i> , Bac <i>gule</i> , Mat <i>kədər</i> ²⁴⁶
'vomit(v.)'	<i>vu/ən-</i>	S <i>vənu</i> , J <i>vuni</i> , B <i>vun-</i> , T <i>pōpənan</i>	? Gwd <i>buburi</i> , H <i>amai</i> (< * <i>amar-</i>), Ngz <i>ban(u)wə</i> , Bac <i>moḥše</i> ²⁴⁷
'vulture'		M <i>ndakwai</i> , B <i>nakwai</i>	? Gis <i>magwadok</i> , F KW-D-G, Mg <i>ɣwadəgu</i>
'wait, spend time'		WDK <i>gər-</i> , P <i>gəta</i> , S <i>gūtu</i> , M <i>gay-</i> , K <i>geh-</i>	? Bac <i>kula</i>
'want' see 'like'			
'war, fight'	a)	P <i>za</i> , S <i>zəhi</i> ;	Ngz <i>ža</i> , Jg <i>zān</i>
	b) <i>-k-S-</i>	P <i>kəši</i> , S <i>kasaki</i> , D <i>akizəla</i> , J <i>akəsə</i> , B <i>kəsə</i> , T <i>kəzan</i>	

²⁴¹Sem *bəs*; Bye *hamaš*; H *bāta* (< **bas-ta*) 'spoil, make bad'. ²⁴²Cf. 'heavy'. ²⁴³Cf. 'open'.

²⁴⁴Sem *ɣth*; Bye *ɣidig* 'open'. ²⁴⁵C 504 Bye *ūša, iša*; Eg *wšš*; Ar *usar* 'retention of u.'; PAA *P-S-n.

²⁴⁶C 170 Ar *kuss*; Amharic *kiṭ*; Bye 'ad; Eg *kə.t* etc. ²⁴⁷Bac *se* 'thing'; cf. 'shade'.

'warthog'	a) <i>dang-S-</i>	S <i>dangazi</i> , J <i>danguzu</i> , M <i>dangəsi</i> , BK <i>dangasə</i> , T <i>dangazan</i> ;	
	b)	W <i>tāla</i> , P <i>tərtəɾ</i> , D <i>atal</i>	
'wash'	(m) <i>bəs-</i>	WSM <i>bəs-</i> , BT <i>bəs-</i> , K <i>bəsə</i> , P <i>mbusu</i> , J <i>mbəs-</i>	? NM * <i>b-n-</i> , Mg <i>pcu</i> , <i>pcina</i> , Bed <i>psu</i>
'water, rain'	a) -(m) <i>bi</i>	P <i>ambi</i> , S <i>ibi</i> , J <i>imbi</i> , M <i>abi</i> , B <i>bi</i> , K <i>abi</i> , <i>ābi</i> ;	?NM*() -m, Bac <i>habye</i> ²⁴⁸ ;
	b) () -w-ɾ-	W <i>'tsuwara</i> , D <i>'tsuwaru</i> , T <i>zāwe</i>	Bac <i>bole</i> , Mg <i>padu</i> } 'rain' Tr <i>roma</i> , H <i>ruwa</i> ²⁴⁹
'wealth' see 'animal, domestic'			
'weep'	w-ɾ-	W <i>wuwə</i> , S <i>biyi</i> , D <i>yāwa</i> , J <i>wara</i> , M <i>vuri</i> , B <i>virī</i> , K <i>biy</i> , T <i>wure</i> (n.)	Ngz <i>wurdə</i> 'cry out' Kof <i>wal</i> 'cry out'
'wet' see 'unripe'			
'wet, be'	a)	M <i>ɾəb-</i> ;	Bac <i>rubə</i>
	b)	WD <i>dəd-</i> , K <i>da-</i> , J <i>da'a</i> , P <i>ta</i> , S <i>tada</i>	
'white'		WK <i>pyauna</i> , S <i>mbĩtsənni</i> (n.), D <i>bē</i> , J <i>balala</i> (n.), M <i>pēni</i> , B <i>vādə</i> (n.), T <i>pācahan</i> (n.)	NM* <i>p-ɾ-t</i> ²⁵⁰
'wind' ²⁵¹	a) <i>ru/əw-n</i>	MK <i>ruwun</i> , B <i>ɾəwən</i> ;	
	b)	T <i>dĩdun</i> ;	RF <i>dido</i> ;
	c)	W <i>hacakai</i> , D <i>ahacu</i> , P <i>kei</i>	Gwd <i>akušuka</i> , H <i>iska</i> , RK <i>kuc</i> , Ngz <i>zuwak</i> , Bud <i>hai</i>
'wing' see 'arm'			
'woman'	<i>am(ay)</i>	W <i>am-ai</i> , J <i>ama</i> , MK <i>am</i> , B <i>dama</i> , P <i>meka</i> , S <i>mūci</i> , D <i>abay-akwa</i> , T <i>ōmey</i>	Ngz <i>ama</i> , Bac <i>mētə</i> , RS <i>amuy</i> , H <i>māta</i> , macē ²⁵²
'word'		D <i>andindāva</i> , M <i>adəngə</i> , B <i>nduwi</i> ²⁵³	
'worm'	a)	P <i>'tsingi</i> , M <i>amušangai</i> , B <i>'tlī</i> ;	? Ngz <i>kəšak</i> , ? Bac <i>jelkate</i>
	b)	K <i>kumadil</i> , T <i>dilbə'sən</i>	
'wring'	' <i>tley-</i>	W <i>tley-</i> , P <i>'tlei</i> , S <i>'tleya</i> , M <i>tliy-</i>	
'write' ²⁵⁴		P <i>tlawo</i> , K <i>tlau</i>	

²⁴⁸Bye *yam*. ²⁴⁹Gawwada *ir'rawo*; Bilin *suwa*, other Cushitic langs have RÖB; Bye *bire*, *ṭab*. ²⁵⁰Ar *byd*. ²⁵¹See 'soul'; cf. Ar *ṛḥ* 'wind', *ruḥ* 'soul'; ? Bye *baram*; Bye *də'āš*. ²⁵²PC *(-)m-t; Akk *amt-* 'slave girl, woman worker'. ²⁵³Other NB forms cognate with 'mouth' or 'say'. ²⁵⁴See 'scratch'.

'year, rainy season'	wasən	W wasən-na, BK wasən, S wasənuwa, D ašin, J wasən, M wasə ʃan, S wasāni 'rainy season'	FM ʃuzu, Msg pisa ²⁵⁵
'yellow'		B gwalaʃu-gwalaʃu, K ɲgwalaʃi	Bac gwala
'youth'	zakwat-	W zakwat-ai, P dla zakwata, D zakwatu, B zakwatana, K zakwatə	Ang zaŋ, Gwd ʃembere, Mg tagwe, Bac lāgba ²⁵⁶

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²⁵⁵Bye masse. Bye hankwīl; Ar ʃabāb; PAA *()-kw-.

'FLY' (NOUN) and 'MOUTH' IN AFROASIATIC

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The paper lists forms for 'fly' (noun) and 'mouth' in 112 Afroasiatic languages in an attempt to discover any light that the comparison of them throws on subdivisions within the family. The etymons suggested are KDB or KDB for 'fly' and Labial-Continuant-Velar for 'mouth'. A fourfold division into Egyptian, Semitic, Berber and Subsaharan AA may have some validity. In any case, there is reinforcement for the idea that speakers of AA languages in the days before they moved away from the heartland must have lived in close proximity and loaned and borrowed and borrowed back lexemes for a considerable period of time.

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1. 'FLY'

The way in which any root from the basic inventory of Afroasiatic tends to suggest its own classification of the languages and, in particular, to blur the distinctions between the Cushitic, Omotic and Chadic subfamilies, is well brought out by a scrutiny of the forms for 'fly' (n.). If, in fact, all these derive from a single etymon — and, as can be seen, this is by no means sure — they reinforce the suggestion that even if these three subfamilies represent common descendants of three protolanguages or dialects, the speakers of these must have lived in close proximity and loaned and borrowed and borrowed back lexemes for a considerable period of time, before going their separate ways to East or West Africa.

An etymon of $\text{*K}\text{D}\text{B}$ is suggested, the diacritic representing an emphatic or glottalized feature. Only a limited number of languages have kept the velar articulation for C_1 , but their number includes languages from the geographical extremes of Afroasiatic: in the west, Hausa-Gwandara

and a few Plateau languages, in the east a few members of Cushitic and Omotic. Thus in this respect these languages (14 out of 112 on the list that follows) are closer to each other than they are to other members of their own subfamilies.

For C_2 , which has survived in all but a very few cases, there is naturally the greatest variation. Even within the N. Bauchi cluster of Chadic, a comparatively closeknit group, there are six variations within nine languages (15 through 23 below).

For C_3 , Chadic on the whole favors /w/, Semitic /(n)b/ while Cushitic and Omotic have in many cases /y/ or /l/. /l/ does not occur elsewhere, while /y/ elsewhere is certainly a loan from Cushitic.

Reduplication of one or other of the three consonants is fairly common, and it is suggested that this often originated in a plural form which may have come to be used as a singular. Given the polymorphic representation of plurality in Afroasiatic languages, this seems likely. For the Hausa form quoted, for example, *kujee*, there is a (commoner) variant *kudaa*, probably an old plural, which itself now has plural *kudaajee*.

As for the few examples that occur with prefix, there are indications here of a dichotomy between *h/y* and *t*, perhaps originally markers of gender and/or definiteness. The suffixes *-n* or *-k* or *-t* that occur are what previous research in this field would lead one to expect.

The evidence, taken from 112 languages, follows. It is suggested that this total may include from one third to a half of the surviving Afroasiatic languages. Significantly missing are non-African Semitic languages, other than Hebrew.

LANGUAGE	PREFIX	C_1 (redupl.)	V_1	C_2 (redupl.)	V_2	C_3	V_3	SUFFIX
CHADIC								
1. Hausa		k	u	j	ee ¹			
2. Gwandara		nk	u	nd	a			
3. Angas				š	i			
4. Kofyar				š	iš			
5. Ron Daffo		kukwi		š				
6. Ron Scha	'a	kuku		š				
7. Ron Bokkos		kungwi		š				
8. Ron Fyer		w	i	nd	i	ɸ		
9. Ron Kulere		'	a	njinju		w		aw
10. Montol				nt	i			
11. Ngamo				dadi, didi				
12. Dera				d	i	ɸ		in
13. Ngizim				j	u	w		ak
14. Bedde				j	u	w	a	an
N. BAUCHI								
15. Warji				c'	i	w	i	na

¹ V_2 < *ay

16.	NB Pa'a		<i>a</i>	<i>t</i>	<i>u</i>	<i>w</i>	<i>i</i>	
17.	NB Siri			<i>t</i>	<i>oo</i>			<i>tsaki</i> ²
18.	NB Diri		<i>a</i>	<i>j</i>	<i>ee</i>			
19.	NB Zumbun		<i>a</i>	<i>duudu</i>				
20.	NB Miya		<i>a</i>	<i>t</i>	<i>i</i>	<i>w</i>	<i>i</i>	
21.	NB Mburku			<i>'tatu</i>				
22.	NB Kaariya			<i>ty</i>	<i>u</i>	<i>w</i>	<i>i</i>	
23.	NB Tsaagu		<i>aa</i>	<i>t</i>	<i>u</i>			<i>n</i>
24.	Sokoro			<i>d</i>	<i>u</i>	<i>g</i>	<i>ə</i>	<i>n</i>
25.	Dangaleat			<i>d</i>	<i>i</i>	<i>w</i>	<i>o</i>	
26.	Mubi			<i>d</i>	<i>u</i>	<i>w</i>	<i>o</i>	
27.	Tera			<i>d</i>	<i>i</i>			
28.	Margi	<i>c</i>	<i>i</i>	<i>d</i>	<i>i</i>			
29.	Higi Nkafa			<i>z</i>	<i>i</i>	<i>ɾ</i>	<i>ɛ</i>	
30.	Higi Futu			<i>ž</i>	<i>ʊ</i>	<i>w</i>	<i>i</i>	
31.	Higi Ghye			<i>š</i>	<i>i</i>	<i>w</i>	<i>i</i>	
32.	Higi Baza			<i>z</i>	<i>ʊ</i>	<i>g</i>	<i>u</i>	<i>naw</i>
33.	Higi Kamale			<i>z</i>	<i>ʊ</i>	<i>w</i>	<i>i</i>	
34.	Fali Jilbu	<i>w</i>		<i>dz</i>	<i>i</i>	<i>'y</i>	<i>ũ</i>	
35.	Fali Kiria			<i>j</i>	<i>i</i>	<i>'</i>	<i>i</i>	
36.	Fali Gili			<i>ž</i>	<i>I</i>	<i>ɓ</i>	<i>i</i>	
37.	Fali Bwagira			<i>j</i>	<i>i</i>	<i>'</i>	<i>i</i>	<i>n</i>
38.	Bachama			<i>ji</i>	<i>dɛ</i>			
39.	Matakam			<i>dz</i>	<i>u</i>	<i>w</i>	<i>e</i>	<i>y</i>
40.	Mofu			<i>j</i>		<i>w</i>	<i>o</i>	<i>y</i>
41.	Mboku			<i>j</i>	<i>u</i>	<i>w</i>	<i>a</i>	<i>y</i>
42.	Hurza			<i>dz</i>	<i>u</i>	<i>w</i>	<i>e</i>	<i>y</i>
43.	Udlam			<i>z</i>		<i>w</i>	<i>e</i>	<i>y</i>
44.	Mada			<i>ž</i>	<i>u</i>	<i>w</i>	<i>e</i>	
45.	Zəlgwa			<i>j</i>	<i>u</i>	<i>w</i>	<i>e</i>	
46.	Gisiga			<i>ji</i>	<i>ju</i>	<i>w</i>	<i>e</i>	<i>d'</i>
47.	Kotoko			<i>z</i>	<i>u</i>			
48.	Logone			<i>z</i>	<i>u</i>	<i>w</i>		
49.	Musgum		<i>a</i>	<i>d</i>	<i>u</i>	<i>w</i>	<i>i</i>	

²Regular NB suffix for male animate.

SEMITIC

50. Geez				z	ə		nb		
51. Tigre ³				c'	ənc'	a		y	
52. Tigrinya ³				s'	əns'	ə		ya	
53. Amharic				z	ə		mb		
54. Argobba				z	ə		mb		
55. Harari				z	ii		nb	i	
56. Zway				z	ə		mb		
57. Gafat				z	ə		mb	ä	
58. Soddo				z	ə		mb		
59. Mäsqaṇ				z	ə		mb		
60. Ennemor				z	ə		mb		
61. Mesmes ⁴				t	aa		y	e	
62. Geto				z	ə		mb		
63. Chaha				z	ə		mb		
64. Arabic				ð	u		baab	(a	t)
65. Hebrew				z	ə		ḥuuḥ		

CUSHITIC

66. Beja, Beda'ye				t	i		'f	aa	
67. Awngi				ts	əntsa				
68. Kemant				šinša					
69. Bilin				šinša					
70. Afar		k	a	ʿ	a		y		to
71. Saho		q	a	'	a		y		to
72. Somali	ta	x		s	i				
	dī	q		s	i				
	ta	k	a	ɾ					
73. Hadiyya							biimbe		'e
74. Kembata				t	a		w	I	
75. Alaba				t	a		w	a	
76. Sidamo				t	e				ni
77. Derasa	ti			tiica					
78. Burji				t	aa		y	a	
79. Borena Galla				tiite					
80. Qottu Galla	ti			'tiica					
81. Mecha Galla	ti			sisā					

³Probably borrowed from 69. ⁴Probably borrowed from 78.

82. Konso	x	aa	j'	a		
83. Gidole	ha	'	a	s	I	l a
84. Bussa		a	ts'	e	l	o
85. Werize ⁵	h	a			mb	o
86. Dasenech	k	ii	ð	i	n	
87. Welamo		u	dunt'e			

OMOTIC

88. Kullo		u	'dunts'i	y	a
89. Dache	w	ɔ	zIntse		
90. Dorze		u	zuunts'e		
91. Oyda		u	'dunt'se		
92. Basketo	w	ʊ	ts' ɔ	l	a
93. Male	w	ʊ	ts ä	l	ɛ
94. Koyra	w	u	tsuutse		
95. Gidicho	w	u	t'uunts'e		
96. Zergulla	w	u	zInts'e		
97. Zayse	w	u	zInts'e		
98. Janjero ⁶	k	uu	ɾ a		
99. S. Mao	yaa	'	u	nz	o
100. Shinasha			zaanza		
101. Kefa	yaa			m	o
102. Mocha	yää	w	I	j	o
103. Bencho	w	u	ts'uts'		
104. She	w	u	'ts'uts'		
105. Nao		u	ts i		
106. Sheko	w	u	ts' i		
107. Dime ⁷	k	u	b	z	o
108. Ari ⁷	s	u	ng u	l	a
109. Banna	k	u	s uu	b	o

BERBER

110. Tamizight		i	z	i	
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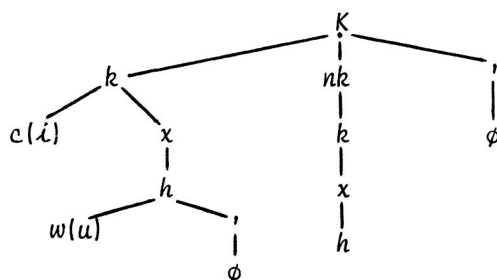
COPTIC, EGYPTIAN

111. Coptic			a	ʃ	
112. Egyptian			ʕ	ʃ ʃ	

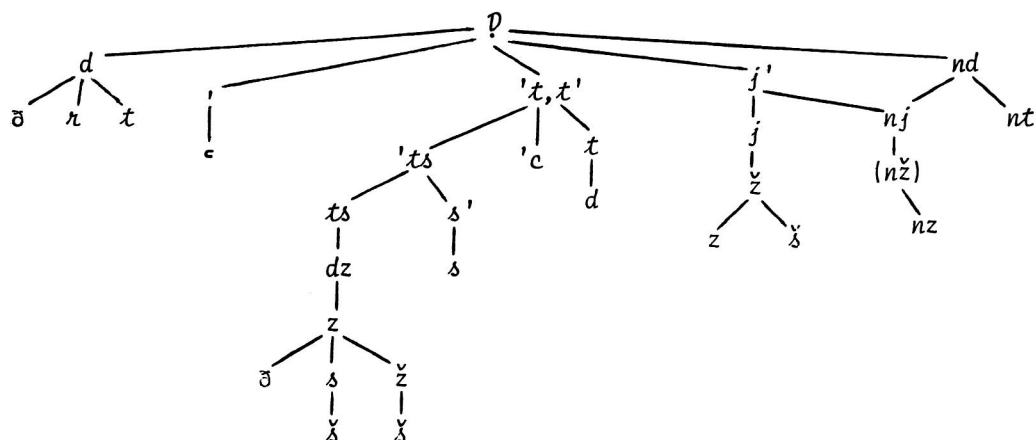
⁵? cognate, see 101. ⁶? cognate. ⁷Metathesis.

Possible histories for each consonant will, of course, suggest that any that differs by more than one feature from the protophoneme could have got there by several routes. This is especially so for C_2 where it is /s/ or /š/ or /z/; and for C_3 where it is /w/. Hypothetical trees for each are:

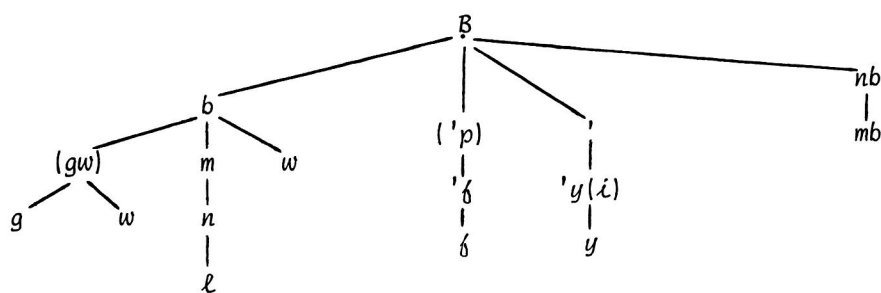
C_1



C_2



C_3



Bracketed consonants do not occur in the data quoted. Bracketed vowels are suggested as the environment needed for the development of the preceding consonant.

Obviously there are many other possible routes that could have been taken, not to mention possible revoicing or reglottalization of consonants that had previously lost these features. It is hoped that more work on individual sound correspondences within smaller clusters of languages will help to simplify the picture.

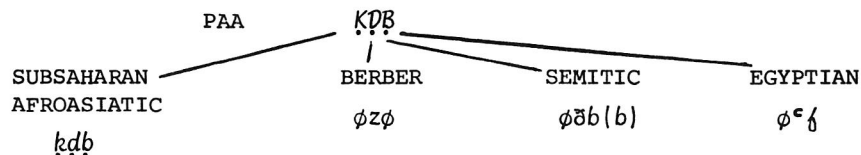
Another interesting topic to be explored is the possibility of three emphatics all with different articulations co-occurring in the protoform. In none of the forms listed is there more than one emphatic (glottalized) consonant in the modern languages (if reduplications and glottal stops are excluded). For C₃ in particular the evidence for the extra feature is thin, but it is well scattered geographically. The Chadic example of this that is, on the face of it, best (12.Dera *dibin*) is said by Newman to derive from **diwin*, but the glottalized labial is supported in Fali and, outside Chadic, in Bedaue. Were these both independent developments or early loans? The Semitic nasalization also looks like a development later than Protoafroasiatic in this word at least, and could well support an earlier stage of glottalization. The only other clear case of a prenasalized labial is in Qimant and this looks suspiciously like the common Semitic form.

On the other hand, that all three of the consonants occur with the extra feature in one or other language but never more than one may support the "mobility of the emphatic factor" (Hodge's words). If this is an acceptable theory, one might posit **KḶḶB* and suggest that in the various later stages the emphatic feature jumped either backwards or forwards. This however seems to demand a great deal of metathesis.

As suggested above, it would be difficult to reconstruct even a proto-N Bauchi form, but to do so for Chadic, using the conservative criteria of Newman and Ma would probably give **d-w-*, with a strong possibility of **j-w-*, yet this would, as I have tried to show, leave us with a large number of Chadic languages where we either have to postulate a different root, or a borrowing. The latter is of course possible for a number of the forms given in the list, but an overall scrutiny of these 112 forms perhaps supports a single protoform.

Summing up, so far as study of one lexeme can give any guidance — and 'fly' is perhaps a good representative for languages spoken in warm or hot climates — it suggests considerable scepticism should continue to be used in positing major subgroupings of the languages now called Chadic, Cushitic and Omotic. In particular, resemblances between the more westerly languages in Chadic and some of the Cushitic and Omotic might bear further investigation. A comparison between Bedaue vocabulary and the Newman and Ma Protochadic list, made by Margaret Skinner in 1972, supports this suggestion so far as lexicon is concerned. A study of 100 carefully chosen lexemes in 100 Afroasiatic languages would be time-consuming but it might throw more light on the matter. It would certainly reveal just how complicated the picture is.

The most that can be said about the history of this lexeme on the evidence given is that there seems to be a fourfold division as follows



in which the Berber and the Semitic look closer to each other than they do to the other two groups.

Note: I am grateful to Patrick Bennett for supplying me with the Egyptian and Coptic forms; and to Robert Hetzron for guidance on some points of Cushitic and Semitic.

2. 'MOUTH'

As a corollary to what has been said about 'fly', a consideration of the forms for 'mouth' is of interest. Again it is possible to reconstruct a three consonant form for Afroasiatic

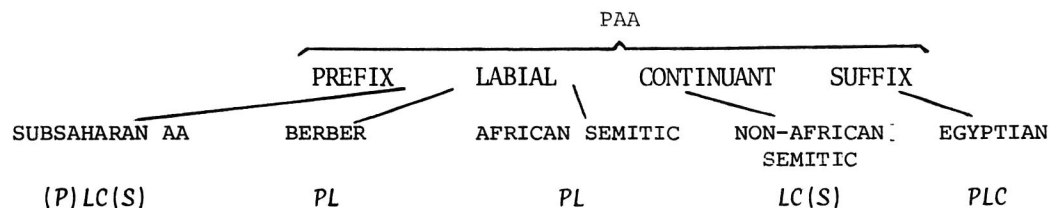
C₁ LABIAL C₂ CONTINUANT C₃ VELAR

and again we have to look to the two extremes of the language area to find languages that preserve reflexes of all three protoconsonants, e.g. Chadic Pa'a, Ron Scha, Higi Kamale; Cushitic Qimant, Gawwada, Tsamai; Omotic Zayse. The evidence from Omotic, however, is weakened by a number of languages (not quoted here) which seem to have an unrelated form, *D-N/*N-N. It is also possible that Hebrew and Arabic have a relic of the velar in /h/.

It has been suggested (by Lukas) that the third consonant of this form is an old suffix for body parts. This appears to be true synchronically for North Bauchi Mburku for -hu. But, whatever may be the morphology of the protophoneme, we still are left with the problem of explaining its survival in such a spasmodic way among this large number of related languages. Once again, even within the fairly closeknit group of N. Bauchi languages, three of them have lost it.

If we cannot reconstruct C₃ for Proto-North-Bauchi, neither can we for Protochadic. But not to reconstruct it for PAA would perhaps cause more complications than to reconstruct it.

The regular presence of a prefix in East Sub-Saharan AA would seem to be one of the major differences from Chadic and non-African Semitic languages — if we ignore the exceptional Bachama form. But those Cushitic languages that have B/P-G/K- have no prefix. Moreover, the presence of a prefix in any language normally seems to exclude the presence of the velar as C₃. It is tempting to speculate that, if the protoform for 'mouth' was C₁ labial C₂ continuant, there was a choice in marking "body part" or perhaps "definite" either to prefix or to suffix *K (or perhaps both in a discontinuous marker). In which case the Bachama (and Cushitic Gidole and Bussa) would not be exceptional, but a survival of the initial consonant of the prefix, which in other cases went to ' or zero. This speculation can be symbolized thus



which itself could support a dichotomy for this lexeme between Non-African Semitic on the one hand and all the others on the other.

LANGUAGE	PREFIX	C ₁	C ₂ or V LENGTH	C ₃	SUFFIX
CHADIC					
Hausa		ba	L	kii	
Gwandara		ba		kyi	
Angas		po			
Kofyar		ɸwo			

Goemai		puə			
Ron Daffo		fo		(h)	
Ron Scha		ha	L	gi	
Ron Bokkos		fo			
Ron Fyer		fo			
Ngizim		mi	ya		
Bedde	'ə	m	n	ya	n
Bole		bo			
Maha		bo		ho	
Dera		bo		k	
Kopti	'u	vui			
Bogghom		pia	p		
Geji		bi			
Warji		vi	na	hə	na
Pa'a		vɛ	ŋ	gi	
Siri		və	ŋ	gi	
Diri		və	na		
Zumbun		vi	na		
Miya		vu	n		
Mburku		və	ŋ	hu	
Kaariya		vi	na	hə	
Tsaagu		ve		he	
Somrai		bu	(m)		
Sokoro		bo		t(um)	
Jegu		be	L	to ⁸	
Karbo		bi	y		
Dangaleat		bi	L		
Mubi		bo		ŋ	
Tumak		bəg			
Tera		me			
Margi		m	n	ya	
Higi Nkafa		m	n	ye	
Higi Futu		vu		ŋu	
Higi Ghye		fu		ŋe	
Higi Baza		m	yæ		
Higi Kamale		vu		ŋwe	

⁸ Cf. Gwandara beta 'speech'.

Fali Jilbu		ma	n	
Fali Kiria		mi		
Fali Mucella		ma		
Fali Gili	m	mi		
Fali Bwagira		ma	n	
Bachama	kwa	me		
Mandara		bwe		
Dghwede		wu	we	
Bata		ma		
Matakam		ma		
Mofu		mi	L	
Hurza		me		
Udlam		ma	L	
Mada		mamma		
Padoko		vu		ŋa
Gisiga		me mi		
Gidar		wo mo		
Musgum		ma	L	
Banana		vu fu	n n	
SEMITIC				
Akkadian		pu	m	
Hebrew		pe		(h)
Arabic		fa fu	m	h
Geez	'a	f		
Tigre	'a	f		
Tigrinya	'a	f		
Amharic	a	f		
Argobba	a	f		
Harari	'o	f		
Zway	a	f		
Walani	a	f		
Soddo	a	f		
Mäsqa	a	f		
Ennemor	am	fw		
Mesmes	an	fe		
Geto	an	fw		
Chaha	an	fw		

CUSHITIC

Beja	yä	ʃ			
Awngi	ɣəm	bi			
Kemant		mä		k'ä	y
Bilin	'aa	b			
Afar	'a	ʃ			
Saho	a	ʃ			
Somali	'a	ʃ		(ka)	
Baiso		hä	L	'i	
Rendille	a	ʃ			
Hadiyya	suu	me			
Libido	suu	me			
Kembata	a'	ʃo	o	ha	
Alaba	a	ʃo			
Sidamo	a	ʃɔ			
Derasa	a	ʃo		'o	
Burji	a	ʃ'ʃ	ay		
Borena Galla	aa	ʃa	n		
Qottu Galla	aa	ʃaa	n		
Mecha Galla	a	ʃaa	n		
Konso	a	ʃa			
Gidole	ka	p ^a			
Bussa	ka	p ^a			
Gawwada		bɛ		go	
Gobeze		pɔ		k-	
Werize		pɔ		ko	
Tsamai		ba		go	
Arbore	o	ho			
Dasenech	a	ʃ(o)			

OMOTIC

Gidicho		ba	L		dde ⁹
Zergulla		ha	L	'e	
Zayse		ba		'	de
Dime	'a	ppo			
Ari	aa	ʃʃa			
Banna	aa	po			

⁹?cognate.

BERBER

Tuareg	e	mi	
Siwa	am	bo	o

EGYPTIAN

Coptic	ta	p	ho
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The Ayt Ndhir dialect which is described belongs to one of the major Berber languages, Tamazight, spoken in the Middle Atlas Mountains of central Morocco. The description is based in the main on research undertaken with native speakers of the Ayt Ndhir territory surrounding El Hajeb. — While directed to the non-specialist, a number of points in the description proper will be of interest to the specialist as well: the presentation of noun and verb morphology points up a number of regularities which more often than not have been obscured in previous descriptions. Also, phonological rules are given which account for the major share of morphophonemic complexities. The reader will find in the appendices and 'optional' sections conjugation tables of typical verbs—including detailed observations on the placement of shwa in verbs—, a chart showing the main morphological patterns involved in verb derivation, a description of the phonological rules applying in complex sequences of morphemes of the verb group, the 'basic' vocabulary contained in several well-known lexicostatistic word lists, and a chart of the Tifinay alphabet used by the Tuareg.

AAD 2 - Ancient Egyptian: *MIDDLE EGYPTIAN* by John Callender. 1975, 150 pp., \$10.

This grammar deals with the literary language used in Egypt from ca. 2000 to 1200 B.C. and considered in even later times to be the classical written form of Egyptian. The book is directed toward the general linguist as well as the Egyptologist; examples are glossed and written in transcription and there is an index of grammatical terms and Egyptian morphemes. A comprehensive set of paradigms of both verbal and non-verbal predicate types is included as an appendix, together with an appendix on negation and one on the historical origin of certain constructions. — The grammar contains three main parts: phonology, morphology, and syntax, of which the last receives most emphasis. The section on phonology sketches the laws of sound change to the extent they can be discovered. The section on morphology stresses the paradigmatic character of verb tenses and their derivations. A distinction is made between truly paradigmatic tenses and tenses borrowed from Old Egyptian for quotations or special effect. Following Polotsky, the "emphatic forms" are treated as nominalizations under the rubric "manner nominalizations." Unlike previous grammars of Egyptian, this grammar discusses syntax according to transformational categories. The process of "clefting" interrelates emphatic forms, the "participial statement" and constructions with *pw*+ relatives. The process character of negation is emphasized, and the implications of so considering it are developed in a special appendix. A sample text is also included, accompanied by a vocabulary and a translation.

AAD 3 - Semitic: *DAMASCUS ARABIC* by Arne Ambros. 1977, vii-123 pp., \$13.

Based on both previous works and the author's own observations, the grammar describes the Sedentary Eastern Arabic dialect spoken in Damascus. While strictly synchronic and written without presupposing knowledge of classical Arabic, it follows traditional arrangement and terminology as closely as possible without failing however to do justice to the individual traits of the dialect. Appendices deal with 1) the regular reflexes of Classical Arabic phonemes in Damascus Arabic, and rules governing the reduction of vowels, and 2) a discussion of morphological substitutions which cannot be interpreted as describing the historical development from Classical Arabic to Damascus Arabic.

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